The Report of the Committee of Inquiry on Crow Benefit Payment

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THE REPORT OF THE
COMMITTEE OF INQUIRY
ON CROW BENEFIT PAYMENT

March, 1985

WINNIPEG

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Committee of Inquiry
on
Crow Benefit Payment

Comité d'enquête
sur
versement de subvention
du Nid-de-Corbeau

303 - 1 Wesley Avenue
(at Main Street South)
Winnipeg, Manitoba R3C 4C6

The Honourable Don Mazankowski, P.C., M.P.
Minister of Transport
Ottawa, Ontario
K1A 0N5.

March 29, 1985.

My Dear Minister,

We take pleasure in submitting herewith the Report of the Committee of Inquiry on Crow Benefit Payment.

As required by Section 62 of the Western Grain Transportation Act, we have identified a method of payment that will, in our option, be "most conducive to agricultural development in Canada". We have completed our work and are submitting this report prior to the March 31, 1985 deadline.

The matters we have reviewed are complex and there are groups who hold strong opinions on the issues. Therefore, we anticipate that, although the Grain Transportation Refund recommended here offers the advantages of the various methods previously considered with few of their disadvantages, this new system will attract controversy.

The Committee would welcome an opportunity to meet with you, and with Members of Parliament, to discuss these matters at your convenience.

Respectfully submitted,

Gordon C Hall
Mr. Justice Gordon C. Hall
Chairman,

Fred Anderson
Fred Anderson

André Raynauld

Douglas Stow
Doug Stow

Syd Williams

Canada

A committee established under section 62 of the Western Grain Transportation Act to make recommendations pertaining to the method of payment in respect of grain transportation that would be most conducive to agricultural development in Canada.

Un comité établit sous la section 62 de La loi sur le transport du grain de L'Ouest pour faire des recommendations sur la mode de versement pour le transport du grain le plus susceptible de favoriser le développement de l'agriculture au Canada.

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ACKNOWLEDGEMENTS

Throughout the comprehensive review of the complex matters assigned to the Committee, the contribution of many individuals and groups has contributed significantly. To all who offered assistance in comprehending the issues the Committee extends sincere appreciation.

Some individuals' contributions merit specific acknowledgement. The Committee wished to thank first the staff of the Committee who were available at a moment's notice to assist in all aspects of our work. Particular thanks and gratitude are extended to Mr. Donald Leitch, our Executive Director and Mr. Robert Marshall, our Research Director whose professional advice and ideas contributed significantly to the conclusions of the Committee. Paul Robinson, Pauline Pele, Nina Kramer, Cynthia Letkemann assisted in providing excellent support services and responded readily to the pressures imposed upon them particularly in the latter period of the very short time available for the Committee work.

The Committee also wishes to acknowledge the consultants who contributed their sound advice in the reports they undertook for the Committee. In addition the Committee must acknowledge the public servants from the Departments of Transport and Agriculture who provided their support and advice and responded to Committee requests, in addition to their normal heavy responsibilities, often on short notice and with severe time constraints. They are too many to name but their individual contributions are appreciated.

Finally the Committee's mandate could not have been fulfilled had it not been for the cooperation of the many organizations that responded to the Committee's request for submissions. Those submissions reflected their dedication to agriculture and transportation in Canada. In the Committee's view it is those organizations, and more specifically the individuals in those organizations, who will be called upon to meet the continuing challenges.

AN OVERVIEW OF THE REPORT

OF THE

COMMITTEE OF INQUIRY ON CROW BENEFIT PAYMENT

The Grain Transportation Refund

The Committee of Inquiry on Crow Benefit Payment has concluded that a new method of payment of government funds in support of western grain transportation is required to enhance agricultural development in Canada and to provide compensation to those who are adversely affected by the ending of the historic Crow Rate.

The method recommended by the Committee calls for the establishment of a **Grain Transportation Refund** (GTR).

GTR payments will be made directly to producers in the Designated Area as defined in the Canadian Wheat Board Act, and they will include all government funds in support of grain transportation including the 1981-82 fund of $658.6 million, and any government contributions under the inflation protection and safety net provisions of the Western Grain Transportation Act.

Payments will be apportioned to individual producers on the basis of their net sales of eligible grains in each crop year, regardless of whether these grains are sold for export, for processing or for the feeding of livestock. There will be no minimum or maximum entitlement. Payments will vary to reflect rail freight charges in the rail freight zones of western Canada.

The GTR could be administered through the Western Grain Stabilization Administration, with payments to producers being made quarterly.

This Overview describes the emergence of the Crow Benefit payment dilemma and the events leading up to the appointment of the Committee of Inquiry on Crow Benefit Payment. It discusses the Committee's legislative mandate and criteria, and the basis on which the Committee has chosen to recommend the establishment of the Grain Transportation Refund.

Background

From 1897 until Parliament passed the Western Grain Transportation Act (WGTA) in November 1983, the financing of western grain transportation was based on the principles of The Crow's Nest Pass Agreement. The freight rates charged to western grain producers to move their products to major export points were fixed by law.

By and large, this arrangement worked in the national interest and in the interests of western agriculture. In the early period, it provided incentives for the development of grain production, and offset geographic disadvantages faced by Canadian producers in their efforts to become major participants in world grain markets. Stable freight rates were a major benefit to prairie agriculture.

Beginning about 1960, however, the system of legislated freight rates applying to a list of statutory grains and grain products began to work less well. The railways faced growing losses from transporting grain, as their costs increased. Those losses were offset in part by subsidies and related programs provided by the federal government. Government measures included specific subsidies for grain dependent branch lines, the branch line rehabilitation program, and the provision of specialized hopper cars to increase system capacity and enhance efficiency. Provincial governments and the Canadian Wheat Board also provided hopper cars.

Despite these measures, total revenue from grain transportation was insufficient to support needed investment to improve the grain rail transportation system. By 1982, it was estimated that the freight rates paid by producers covered only about 20 percent of the actual costs of moving grain. The total difference at that time between the revenue received from producers and the full costs of transportation (referred to as the "Crow gap") has been calculated to be $658.6 million annually. Even after government subsidies, the railway revenue shortfall in that year was estimated at some $300 million.

This growing disparity between the costs and revenues of the railway grain transportation system interfered with agricultural development in two major ways.

First, it led to a decline in the operations of the grain transportation system, with producers facing increased transportation and handling problems. These reduced Canada's ability to compete in international grain markets and affected our reputation as a reliable supplier. It also became evident that, without significant new investment in the rail system, it would be unable to move the increased tonnage that western grain producers were capable of producing and selling internationally. Concerns about system capacity for grain were heightened by forecast increases in shipments of such other commodities as coal and potash, which competed for capacity and which, unlike grain shipped under the Crow Rate, earned profits for the railways.

Secondly, this situation increasingly discouraged diversification of western agriculture. The transportation subsidy resulted in an artificially high net price being received by producers who shipped their grain by rail for export. This, in turn, drove up the farm gate prices for grain purchased for processing or to feed livestock. This farm gate price distortion was estimated to average $20.90 per tonne in 1981-82.

The Crow Rate, however, had acquired more than economic significance. It was viewed as an important element in the overall health of western agriculture and in the maintenance of rural communities. The subsidy costs to the federal treasury were viewed, in many western Canadian circles, as the "other half" of an implied national agreement whereby tariffs protecting manufacturing industries in central Canada were balanced by freight rate protection for the west's basic grain industry.

The problem was to identify a fair and acceptable way of providing the additional funds to modernize and expand the grain transportation system without abandoning what was seen as the west's historic and equitable entitlement to protection from high freight rates on export grain.

The Gilson Consultations

To resolve this dilemma, the federal government appointed Dr. Clay Gilson, an agricultural economist at the University of Manitoba, to consult and negotiate with major groups having significant direct interests in the future of grain transportation in the west.

Gilson received briefs and submissions from all major western agricultural groups and the railways, and engaged in intensive consultations with representatives of those groups.

The Gilson "Consensus"

Not all parties participating in these consultations agreed on all aspects of an appropriate future direction for grain transportation. There was, however, a general consensus on a number of broad principles. Among the most significant were:

a) the need for additional revenue to the railways to permit the rail transportation system to be modernized and expanded;

b) the need for government to accept continuing responsibility for the maintenance of an effective and affordable grain transportation system;

c) an acknowledgement that both producers and government should share in the increased costs of improved grain transportation;

d) the need for government measures to protect producers from precipitous or excessive increases in transportation costs; and

e) a belief that the "Crow Benefit" represents an historic entitlement to western grain producers.

Not all parties subscribed entirely even to these broad principles. By and large, however, these opinions were shared by most who participated in the Gilson process. In turn, these principles formed the basis for relevant sections of Bill C-155 which became the Western Grain Transportation Act.

Several groups had additional concerns that emerged during Parliament's efforts to translate these general principles into legislation. Spokesmen for producers and the grain industry were concerned that the Act established the 1981-82 crop year's shipments of 31.5 million tonnes as the "cap" - the maximum quantity of grain to which the historic Crow Benefit would apply, with producers absorbing the total cost of shipping any tonnage beyond that limit. The railways were concerned that the system of cost adjustment in the Act, with costs adjusted every four years and all gains in efficiency then passed on to the shipper, did not offer them adequate opportunity to recoup investments in system efficiency.

Such concerns had been foreseen in the Gilson consultations, and in the Act itself, with a thorough review called for in 1985-86, once the efficacy of the new arrangements could be measured.

The Crow Benefit Payment Problem

There was no general agreement among those who participated in the Gilson consultations on a method of paying the Crow Benefit, even for the period ending with the 1985-86 review. As the Act was being considered, groups who had not participated, including those representing eastern Canadian agriculture, also became concerned.

The government funds available for distribution in support of grain transportation in any year are the total of: $658.6 million representing the amount of the Crow Benefit in 1981-82, plus government contributions towards annual cost increases under the inflation protection clauses of the Act, plus any contributions under the safety net limitations.

This total is referred to throughout this report as the Crow Benefit.

In general, there have been two schools of thought as to how these funds should be paid out. One called for the payments to be made to the railways to reduce rates charged for shipping eligible grain and grain products. The second called for payments to be made directly to producers, to compensate them for higher freight costs. Each general alternative was seen to have both advantages and disadvantages.

The "Pay the Railways" Approach: Advantages and Disadvantages

The main advantages claimed for the "pay the railways" approach included:

a) administrative simplicity;

b) the benefit would all accrue to those who actually shipped statutory grains - those who received the direct benefits of the Crow Rate in the past;

c) "pay the railways", along with the inflation protection and "safety net" provisions of the WGTA would moderate freight rate increases; and

d) this approach would ensure direct accountability to the government for railway performance.

There were also, however, a number of disadvantages to a "pay the railways" mechanism. These included:

a) the perpetuation of unintended incentives for the production of statutory grains for export as opposed to other, possibly better uses of prairie agricultural resources;

b) continued disadvantages for western livestock production and processors;

c) a built-in competitive disadvantage for modes of transportation other than rail; and

d) a masking of real transportation costs to the producer, reducing incentives for farmers to seek greater efficiency in the grain handling and transportation system.

The "Pay the Producer" Approach: Advantages and Disadvantages

The second school of thought called for the benefit to be paid directly to producers who, in turn, would be charged transportation rates based on the full costs of moving their grain.

Under the approach recommended by Gilson, farmers would qualify for payments on the basis of the crop production capability of their land. This approach was seen as having the following main advantages:

a) it was "resource neutral"; that is, it would remove artificial incentives for the production of statutory grains for export as opposed to other, possible better uses of land, capital and other resources;

b) it would remove farm gate grain price distortions which have discouraged the development of western livestock production and processing;

c) it would make full transportation costs visible to producers, introducing a greater element of market accountabiity to the system and motivating producers to choose the most economic modes of transportation and to demand greater efficiency in the system.

Paying producers on an acreage basis, however, involved the following disadvantages:

a) spreading the benefit among all producers with land capable of producing statutory grains would dilute the benefit, so that those who actually grow and ship such grains for export would receive inadequate compensation for freight rate increases; Gilson acknowledged this problem and suggested that an additional $305 million be provided by the federal government and paid out over several years as an "agricultural adjustment fund" to compensate the grain producing sector;

b) this approach did not recognize the importance of individual farm management;

c) providing payments to all western farmers with land capable of producing statutory grains could work to the disadvantage of agriculture in other regions of Canada; producers of crops other than grain would receive payments which would not be available to producers elsewhere in the country and livestock producers could benefit both from reduced farm gate grain prices and from direct receipt of Crow Benefit payments not available to producers in other regions;

d) it was seen as being administratively difficult;

e) the system was complex, and would be difficult for producers to understand and accept.

Gilson had called for the acreage based system of payments to producers to be phased in, with payments going to the railways in the first year, and then being gradually shifted until 81 percent of the total was being paid to producers with the remainder treated as a "hold back" to ensure railway performance. This was seen as adding additional complexity.

The Appointment of the Committee of Inquiry on Crow Benefit Payment

During consideration of the WGTA in Parliament, the government proposed and then withdrew a suggestion that payments be divided on a fifty-fifty basis between producers and the railways. Finally, Parliament decided that the benefit should be paid entirely to the railways at least until the scheduled 1985-86 review of all aspects of the Act.

The legislation also called for the appointment of the committee to review and recommend on the method of payment of the Crow Benefit. The Committee of Inquiry on Crow Benefit Payment was appointed in April of 1984. The Committee was required to report to the Minister of Transport on or before March 31, 1985.

The Committee has been headed by Mr. Justice Gordon C. Hall of the Manitoba Court of Appeal. Its other members are:

Fred Anderson:	Regina, Saskatchewan
André Raynauld:	Montreal, Quebec
Douglas Stow:	Graysville, Manitoba
Syd Williams:	Ottawa, Ontario

The Committee received a total of 60 briefs and submissions from some 38 different organizations, and held dozens of individual and group meetings with interested parties over the period from September, 1984 until the end of February, 1985. Organizations submitting briefs or participating in discussions included agricultural organizations, the grain co-operatives, the two national railways, regional and national industry organizations including representatives of the trucking industry, and provincial governments.

Parallel with these ongoing consultations, the Committee carried out a research program focused on identifying the impacts of various methods of payment on western and national agriculture.

The Committee's Legislative Mandate

The mandate of the Committee found clear expression in Section 62 of the WGTA which reads:

> "The Committee shall examine all matters that, in its opinion, pertain to the method of payment in respect of grain transportation that **would be most conducive to agricultural development in Canada.** " [emphasis ours]

The Committee's Criteria

In addition to this legislative mandate, the Minister of Transport provided four additional criteria for the guidance of the Committee. These were:

a) Resource Neutrality
b) Equity
c) Efficiency
d) Administrative Feasibility

The Committee was instructed to take account of these criteria, and of the implications of various methods of payment for the grain handling and transportation system, within the context of its paramount focus on agricultural development. The Committee interpreted the criteria as follows:

The RESOURCE NEUTRALITY CRITERION requires that the method of payment not interfere unnecessarily with market forces and producer choice in determining production and marketing patterns in agriculture. This implies that the arrangements should include minimal artificial incentives for the production of statutory grains rather than other production, and should result in minimum distortions in farm gate prices so as to remove barriers to livestock production and other processing in the west.

The EQUITY CRITERION requires that the method of payment take into account all losses and/or benefits arising from this change in public policy, and that it provide compensation for losses in a way that will be perceived to be generally fair. Although no method of payment will result in full compensation for every individual affected, this criterion implies a requirement that direct benefits be paid only to those producers who actually grow statutory grain for sale, and that payments should provide the fullest possible compensation. It also requires that possible losses in other regions of Canada be identified and compensation provided where justified.

The EFFICIENCY CRITERION requires that the method of payment encourage the efficient use and development of the grain handling and transportation system, and of agricultural resources.

The ADMINISTRATIVE FEASIBLITY CRITERION requires that the method of payment be capable of being administered without excessive complexity or costs. The Committee also interprets this criterion as implying a requirement that it be fully comprehensible to western grain producers.

Retaining the Key Advantages

In the Committee's view, none of the methods of payment that had been discussed up to the passage of the WGTA can meet all aspects of these criteria. Accordingly, the Committee has worked to identify an alternative method of payment of the Crow Benefit that would provide the main benefits claimed for both the "pay the railways" and the "pay the producer" options, rather that merely attempting to choose among the alternatives presented to it.

In the view of the Committee, the most significant advantages of the "pay the railways" option are its familiarity to grain producers and their organizations, its apparent administrative ease, and the fact that it confines the benefit to the grain producing sector. Given historic western distrust of the railways, the fact that this option ensures that the railways are seen to be accountable directly to the government for their performance is also important.

Longer term protection from rapid freight rate increases is built into the WGTA as it is currently written. The Act places a ceiling of the first 6 percentage points as the producers' share of annual increases in freight rates relating to the 31.5 million tonne Crow "cap" after 1986-87, with increases above that level to be borne by the federal treasury.

The "safety net" provisions of the Act provide protection against grain price collapses, providing for automatic relief to producers where average freight charges become excessively high in relation to average export prices for a basket of grains.

The acreage based approach recommended by Gilson was, in theory, the most resource neutral approach, with compensation being independent of the farmer's future production or marketing choices. It was recognized, however, that this approach exposed the producer to significant immediate rate increases for which, unless extra government funding was provided, there would be inadequate compensation. This would occur because the benefit would be diluted, with payments based on acreage with the potential to produce statutory grains rather than on actual production or shipment of such grains. Gilson recommended the $305 million Agricultural Adjustment Fund be established to offset this dilution.

The acreage based approach would also have resulted in payments to livestock producers and other non-grain producers in western Canada. Since such payments would not be available to similar producers in other regions, they were seen to be unacceptable on the basis of equity.

In other words, if the main advantages of the "pay the railways" option were to be retained, the acreage based "pay the producer" approach would have to be significantly altered.

There were also, however, significant advantages to the "pay the producer" approach. In the Committee's view, the most important were the removal of farm gate grain price distortions that have worked to the disadvantage of western agricultural development, and the spurs to efficiency that would result from having full freight costs apparent to producers.

Short of payments being made directly to producers, the Committee saw no feasible means of achieving either of these advantages. The challenge, then, was to devise a means of making payments to producers that would also permit effective compensation for immediate freight rate increases, that would avoid payments being made outside the grain producing sector, and that would ensure direct accountability for railway performance.

In particular, the Committee believes there is merit in a system that will make full transportation costs visible to producers, and that will, as a consequence, stimulate producer pressure for greater efficiency in the grain handling and transportation system. This may call for adjustments in the operations of the grain industry, the railways, and the trucking industry. The enterprises in these industries, however, are sophisticated and well managed, and the Committee has no doubt that they have the capacity to adjust to new competitive circumstances as these emerge.

Further, in the Committee's view, it is entirely appropriate that the system becomes more clearly "producer driven", with individual farmers making production and marketing decisions on the basis of full economic information and their own business interests. Those most affected by this change in public policy are the producers themselves and, that being so, they have a right to full information upon which to base their own adjustments, to empower them to demand and evaluate improved efficiency throughout the grain handling and transportation system, and to decide the rate at which changes in the system should take place.

Recommendations

In arriving at its recommendations, the Committee has viewed the Crow Benefit as representing compensation to grain producers who are affected by a major shift in public policy in Canada. Payment of this benefit can usefully be seen as a refund in respect of increased grain transportation costs.

Accordingly, the Committee recommends that a system of paying the Crow Benefit, consisting of the $658.6 million 1981-82 fund and any government contributions under the inflation protection and safety net provisions of the WGTA, named the **Grain Transportation Refund** (GTR), be instituted. The following is a summary of major recommendations setting out the means by which the GTR operates to meet the legislative mandate and the criteria of the Committee of Inquiry on Crow Benefit Payment.

> **The Committee recommends that a Grain Transportation Refund (GTR) consisting of the 1981-82 fund of $658.6 million and government contributions through the inflation protection and safety net provisions of the WGTA be paid directly to producers in the CWB Designated Area.**

> **The Committee recommends that the Grain Transportation Refund be allocated on the basis of net sales of eligible grains in each crop year, with no minimum or maximum limits on the producer's entitlement.**

The GTR mechanism will result in far more efficient compensation to farmers who would have benefited under the Crow Rate system. Because payments will be made only within the grain producing sector, the benefit is less diulted. Because it applies to all sales of grain rather than being limited to grain sold for export, it will eliminate the distortions in farm gate grain prices which have hindered the development of western agriculture.

The Committee recommends that the role of the Western Grain Stabilization Administration be expanded to include administrative responsibility for the distribution of the Grain Transportation Refund, including all accounting activities involved with purchases and sales records, system monitoring and payments to producers.

The Committee's investigations revealed that, with some minor enhancements, the Western Grain Stabilization Administration could handle GTR payments at marginal extra cost. Total additional administrative expenses to the government for the apportionment and payment of the GTR - a total of nearly $700 million - would be in the order of $1 million annually.

The Committee recommends that the railways be required to post substantial performance bonds to ensure that they satisfy performance requirements as defined by the Grain Transportation Agency.

The Grain Transportation Agency (GTA) is the body already responsible for monitoring performance under the WGTA. The addition of a substantial performance bonding requirement to the GTA's ongoing monitoring of railway performance will ensure clear and material railway accountability.

The Committee recommends that the principle of compensation be recognized as applying equally to eastern Canadian agriculture where losses resulting from this change of policy are clearly identified; and that an assessment of the impacts of the GTR be conducted after an appropriate period of time with compensation provided where justified in the same proportion of losses as in western Canada; the Committee also recommends that such compensation be distributed among eastern provinces in proportion to identified income losses resulting from this change in the method of payment.

There have been concerns voiced by spokesmen for Quebec agriculture in particular that removal of farm gate grain price distortions in the west may work to their detriment. The analysis done for the Committee, using economic models, indicates that the growth in farm income in eastern Canada will be only marginally less under the GTR than under a continuation of a "pay the railways" system. Nonetheless, the Committee believes the impacts of this change on eastern agriculture should be evaluated after the fact, and that compensation should be provided where losses are clearly identified.

> **The Committee recommends that all aspects of the GTR, including the effectiveness of necessary legislative measures to be included in the WGTA and the administrative arrangements for its operation be subject to regular monitoring and review.**

The Committee wishes to make it clear that the GTR recommended in this report is designed to meet current and anticipated conditions. There is, however, no intention that it be etched in stone, and no claim that all outcomes of these arrangements can be identified and measured in advance.

The GTR and the Committee's Criteria

The GTR fulfills the objectives set out for the Committee.

It provides a high degree of **resource neutrality** . By making payments on the basis of all net sales of eligible grain, whether for export or not, the incentive to produce grain solely for export will be removed. Distortions in farm gate prices will also be removed. The GTR applies only to grain, and because it applies to domestic as well as export transactions, it would not violate GATT principles. This makes it more difficult for trading partners to trigger protective measures.

The GTR meets the **equity** criterion. By making payments only to producers selling statutory grains, dilution is kept to a minimum; on average, producers will receive compensation equal to 85-90 percent of the benefit lost as a result of this policy change. Because it confines payments to the grain producing sector, the GTR will not result in payments being made to western livestock or other non-grain producers which would not be available to such producers in other regions.

The GTR will contribute to **efficiency.** By making full transportation costs visible to producers, it will encourage producer recognition of the need for enhanced efficiency in the grain handling and transportation system. The Committee believes this will contribute to the development of a system that is more responsive to producer needs. The performance bonding requirement in support of railway accountability to the Grain Transportation Agency will ensure that performance standards are met within the rail sector.

In addition, because the GTR is paid in respect of transportation costs in general rather than applying solely to rail transportation costs, it will encourage the efficient use of other transportation modes where this is economic. Finally, because it does not offer incentives for the production of grain for export as opposed to other grain production or marketing options, the GTR will permit farmers to make such decisions based on their real economic merit.

The GTR meets the test of **administrative feasibility.** It can be integrated into the existing Western Grain Stabilization Administration and the documentation procedures now in place within the grain handling and marketing system, and can be administered at low cost. The basis upon which the GTR operates is clear and simple, and will be easily understood by producers.

The GTR and the Committee's Legislative Mandate

Section 62 of the WGTA requires the Committee to recommend a method of payment for the Crow Benefit that "would be most conducive to agricultural development in Canada".

In evaluating the impacts on immediate and longer term agricultural development of alternative methods of payment of the Crow Benefit, the Committee commissioned a number of studies, including quantitative studies based on economic models. The results of these studies indicated that a significantly "better off" position for Canadian agriculture would result from a method of payment that would remove farm gate price distortions that have acted as obstacles to agricultural diversification in western Canada.

The GTR does remove these constraints, and will contribute to the overall development of agriculture in Canada. At the same time, because the GTR confines the benefit to the grain producing sector, it provides effective compensation for higher transportation costs. This also avoids unintended or disproportionate benefits to western non-grain producers which could have worked to the detriment of agriculture in other regions.

In short, the Committee believes that the proposed Grain Transporation Refund will retain the historic entitlement that was embodied in the Crow Rate within a context that is "conducive to agricultural development in Canada".

Towards a Producer Driven System

In the Committee's view, one of the greatest underlying advantages to Canadian agriculture of the GTR is that it will enhance the opportunity for farmers to make production, marketing and transportation decisions based on their own business judgement.

The GTR removes artificial incentives for the production of statutory grain for export. It removes artificial obstacles to livestock production and other agricultural diversification in western Canada. It removes artificial incentives to transport crops by rail.

By making full costs visible to producers, the GTR will encourage farmers to demand enhanced efficiency and responsiveness throughout the grain handling and transportation system.

The ending of the Crow Rate and the passage of the WGTA will affect western Canadian producers most directly. The GTR will ensure that farmers are provided with significant compensation, and with the information and the scope required for a successful adjustment to these economic changes.

CHAPTER I

THE COMMITTEE OF INQUIRY

BACKGROUND, ESTABLISHMENT, MANDATE, CRITERIA AND PROCESS

1. THE ORIGIN OF THE COMMITTEE

In November of 1983, after lengthy consultations and Parliamentary debate, the Parliament of Canada passed Bill C-155, The Western Grain Transportation Act (WGTA). This legislation provided a new framework for the operations of the western grain transportation system to replace the eighty-five year old arrangements based on the Crow's Nest Pass Agreement.

Prior to submission of Bill C-155 to Parliament, the government had conducted a wide ranging series of consultations with major western agricultural interests, under the direction of Dr. C. Gilson. Throughout those consultations, and in the Parliamentary debates and discussions dealing with the Bill, a general consensus emerged in relation to many of the main issues involved in grain transportation. Bill C-155 was based on these broad areas of general agreement.

Because of the complexity of the matters under consideration, and the wide range of divergent views involved in the consultations and debate, Parliament accepted the Gilson recommendation that the new arrangements be subject to a comprehensive review to take place in 1985-86, when all medium term outcomes could be more accurately measured and evaluated.

One central issue of controversy and concern, however, was particularly difficult to resolve: it related to the method whereby the funds committed by the Government of Canada in support of western grain transportation were to be paid.

2. THE ISSUE OF PAYING THE CROW BENEFIT

There was consensus among the groups participating in the Gilson consultative process, and later supported by Parliament, that western grain producers were entitled to a continuation of an historial "Crow Benefit". That consensus broke down when it came to defining specific mechanisms for the disbursement of those funds.

Prior to the passage of the WGTA, each producer who shipped statutory grains to market by rail received a benefit in the form of freight rates lower than the full cost of moving the grain to export position. In total this represented the "Crow gap", the difference between the full costs of transportation and the amounts paid by producers. In years when a producer shipped more grain, a greater benefit was received; in years when shipments were lower, benefits were lower to any individual producer.

In essence, the WGTA said that the benefit received in this way by western grain producers in 1981-82 should be provided from the federal treasury, but that, within a set of inflation and "safety net" protections written into the Act, producers should pay the full future incremental costs associated with shipments of grain equal to the 1981-82 crop year shipments of 31.5 million tonnes. In addition producers were to pay the full costs of shipments of additional volumes of grain in the future.

The question was: to whom and how should that continuing benefit be paid?

Through the consultative process, and the debates and discussions in Parliament, there were two broad alternative answers to that question which were considered.

The first was that the benefit should be paid directly to the railways. The advantages of this approach were that it would result in protection against large immediate freight rate increases in respect of shipments up to the 1981-82 volume of 31.5 million tonnes of grain, and that it would provide clear and direct accountability for railway performance; if the railways failed to meet commitments for improved efficiency and performance, the government would be in a position to withhold payments. Basically this method maintained the economic status quo of the grain industry.

The disadvantages resulting from this approach were that it perpetuated a distortion in the farm gate price of grain which, in effect, was increased by the amount of the transportation subsidy. This distortion operated to the disadvantage of prairie livestock producers and other processors of grain on the prairies. It obscured the full costs of transportation to producers, providing an economic incentive to the production of statutory grains for export relative to other agricultural activities.

The second broad alternative approach for paying the benefit was to make payments directly to producers. The freight rates they would be required to pay for shipping their grain would increase immediately for all grain shipped, but payments of the Crow Benefit directly to producers would compensate them, although not fully, for these increased costs.

The Gilson process resulted in a recommendation for a split system, with payments to producers growing, on a phased basis, to 81 percent of the total government funds, and payments to railways declining to 19 percent. It was argued that this split of the funds would provide clear accountability of the railways, while providing many of the advantages claimed for the pay the producer approach.

Gilson's recommendations, however, would have seen the producer payments divided, on an acreage basis, among all those who owned land with the potential for producing statutory grains. Since this included many thousands of acres which had not normally or always been used for this kind of production, it would have resulted in a "dilution" of the benefit such that freight rates paid by those who actually grew and shipped statutory grains for export would have increased substantially in excess of the compensation they would have received from the government payments. The financial hardship that would result from this diluted compensation was, it was argued, potentially disadvantageous for western grain production, unless additional funding was provided.

Further, it was argued, the payment of the benefit to owners of land not devoted to statutory grains production would have resulted in unfair benefits to such non-grain producers as potato farmers and sugar beet growers. In addition, it was also argued that there would be a "double benefit" to western livestock producers who, in addition to being able to buy feed grains at a lower farm gate price, would also have received "Crow Benefit" payments from the government.

In the face of these conflicting views and arguments, Parliament in the passage of the WGTA, legislated that payments of the benefit should be made directly to the railways.

At the same time, because of the divergent views of those participating in the debate, the legislation required that a Committee of Inquiry be appointed to make recommendations as to the method of paying the benefit that would be most conducive to the development of agriculture in Canada, and to the improvement of the grain transportation system to serve the interests of western agriculture and the nation as a whole.

3. ESTABLISHMENT OF THE COMMITTEE OF INQUIRY

The Committee of Inquiry on Crow Benefit Payment was subsequently appointed pursuant to Section 62 of the Western Grain Transportation Act.

Section 62 of the WGTA states that:

> (2) "The Governor-in-Council shall, on or before April 1, 1984 appoint a committee consisting of not less than three and not more than five persons who have expertise in matters affected by this Act and represent various regional interests."
>
> (3) "The Committee shall examine all matters that, in its opinion, pertain to the method of payment in respect to grain transportation that would be most conducive to agricultural development in Canada."
>
> (4) "The Committee has, for the purpose of carrying out its duties, the powers of a commissioner under Part 1 of the Inquiries Act and may, for those purposes, engage the services of those experts, professionals and other staff as it deems necessary or advisable at such rates of remuneration as the Treasury Board approves."
>
> (5) "The Committee shall, on or before March 31, 1985 make a report to the Minister containing its recommendations pertaining to the method referred to in subsection (3) and the Minister shall cause a copy of the report to be laid before Parliament on any of the first fifteen days that either House of Parliament sits after this report has been made to the Minister."

A five man committee was appointed by Order-In-Council on April 24, 1984. The Committee is chaired by Mr. Justice Gordon C. Hall of the Manitoba Court of Appeal. Other members are:

Fred Anderson: Regina, Saskatchewan
André Raynauld: Montreal, Quebec
Douglas Stow: Graysville, Manitoba
Syd Williams: Ottawa, Ontario.

4. THE COMMITTEE PROCESS

The Committee began its deliberations in May, 1984 and retained the services of an Executive Director and a Research Director. At the same time the Committee wrote to cooperative grain companies, agricultural organizations, the railways, and other organizations who had previously been involved in discussions prior to enactment of the WGTA and sought their current views on the method of payment. The first submissions were received in June. The Committee continued to accept briefs from organizations throughout 1984.

Each provincial government was asked if it wished to express its views with respect to the method of payment to the Committee. Seven provincial governments responded and submitted position papers.

In total some 38 organizations submitted a total of 60 briefs or submissions to the Committee. Several organizations took the opportunity to present an initial submission and followed up with either more detailed submissions or supplementary submissions later during the process.

In September, 1984 the Committee began a series of consultative meetings with many of the organizations that had submitted briefs. Some organizations had requested the opportunity to appear before the Committee. Other organizations had indicated that they were undertaking research on the topic and sought the opportunity to present it formally to the Committee. In some instances the Committee asked organizations to meet with them for the purpose of seeking clarification and elaboration on the documentation submitted. The consultative meetings continued until February, 1985.

Certain organizations and provincial governments when contacted, indicated that they did not desire a formal meeting with the Committee and felt that their written submissions adequately expressed their positions.

Organizations submitting briefs and meeting the Committee included agricultural organizations, grain cooperatives, direct producer membership organizations, the two national railways, regional and national industry organizations, and provincial governments. The submissions and the time spent by the organizations with the Committee contributed significantly to the Committee's understanding and appreciation of all aspects of the issues at hand.

In May, 1984 the Committee began to develop a research program and commissioned specific studies. A list of those studies is in Appendix 3.

5. TERMS OF REFERENCE

In addition to the legislative mandate, the Minister of Transport provided supplemental terms of reference to the Committee for further guidance. These were as follows:

(1) Criteria

The Committee will assess and make recommendations on who should receive the government funds as provided for in the Western Grain Transportation Act and by what means and manner should these funds be distributed. In making its recommendations the Committee should consider the following criteria in assessing the various method of payment options that have or may be proposed:

(a) Resource Neutrality
The method of payment should not deter the influence of market forces in determining production and marketing patterns in Canadian agriculture.

(b) Equity
The method of payment should ensure that government funds are distributed in an equitable manner in terms both of the recipients and their share of those funds.

(c) Efficiency

The method of payment should not prevent freight rates from encouraging the efficient use of the grain transportation and handling system.

(d) Administrative Feasibility

The method of payment should be relatively easy and straightforward to administer without incurring excessive administrative costs.

(2) Agricultural Impacts

The Committee, in its assessment of the alternative method of payment options, should take into account, amongst others, the following considerations:

(a) The impact on freight rates and on net out-of-pocket costs to statutory grain shippers.
(b) The effects on realized farm gate prices for grain in both western and eastern Canada.
(c) The impacts on both western and eastern agricultural output resulting from the above-noted farm gate price changes, including such things as grain production and marketings, and secondary agricultural processing.
(d) The impact on the major inputs used in domestic agriculture implied by the estimated production/marketing/processing changes.
(e) The consequences for national and regional farm incomes both in the aggregate and, where feasible, at the farm level.
(f) The administrative feasibility and costs of implementation.

(3) Transportation and Handling Impacts

The Committee should assess the impacts of alternative method of payment options on the efficiency of the western grain transportation and handling system. In its assessment, the Committee should take into account, amongst others, the following considerations:

(a) The effects of potential efficiency gains on the estimated agricultural impacts.
(b) The anticipated pace of change in the grain transportation and handling system.
(c) The implications for western grain transportation costs.

6. THE COMMITTEE'S INTERPRETATION OF ITS MANDATE AND TERMS OF REFERENCE

Early in the deliberations of the Committee it became apparent that the Committee had to reach a common understanding of its mandate; the terms of reference as they related to the "Crow Benefit"; and the criteria of resource neutrality, equity, efficiency, and administrative feasibility. In doing so it also became apparent that the concepts set out to guide the Committee's assessment of payment alternatives and, in the final analysis, its recommendations, were elusive with respect to precise interpretation and, in some respects, conflicting when judged within any one policy framework. This was also reflected in the opposing views expressed in the various briefs presented to the Committee.

a. The Terms of Reference Criteria

It is readily apparent that no one method of payment option would best satisfy all the criteria of resource neutrality, equity, efficiency, and administrative feasibility. All payment options considered varied when ranked against the criteria. Furthermore, the criteria are interrelated and may complement or conflict with one another. For example resource neutrality has efficiency implications and impacts on equity considerations, both positively and negatively depending on the interpretation of equity.

In general the process of evaluating alternative methods of payment was one of weighing of criteria with, at the extreme, outright rejection of specific payment options on the basis of one or more criteria.

The terms of reference criteria were interpreted as follows:

> Resource neutrality: The criterion of resource neutrality implies that consideration be given to the impact that the method of payment would have on production and marketing decisions. Resource neutrality suggests a system within which market forces would be permitted to determine land use, production mix, enterprise choice, and marketing decisions without being distorted or influenced by the existence or size of a payment from the Government of Canada.
>
> In addition the arrangements should be neutral as between export and other uses of statutory grains so as to result in the minimum possible distortion in realized farm gate grain prices to remove disadvantages to livestock production and other grain processing in the western region.

Equity: The shift away from the historic Crow Rate is a substantial departure in a long-standing federal policy. Any such change implies some costs and some benefits to some groups involved in or affected by the grain transporation system.

The Committee interpreted the equity criterion as a requirement that such losses or benefits as may result from any recommended method of payment be shared generally on an equal basis by all individuals in the same situation. While equity viewed in this way may be subjective, the Committee believes this criterion can be met by identifying major impacts of any proposed mechanism for the payment of this historic benefit and redressing the distortions.

The method of payment recommended should result in direct benefits, receipt of government payments, being realized only by those producers who actually grow statutory grains for off-farm sale, providing the fullest possible compensation for the impacts of full cost freight rates on those who have traditionally benefited from the Crow Rate.

The Committee was of the view that any recommended method of payment should not give a new benefit to any group, that was not intended by the original policy change, over its counterparts in other regions of the country.

Efficiency: The Committee has interpreted the efficiency criterion as requiring that any set of arrangements recommended for the payment of the Crow Benefit contribute to enhanced efficiency both in the handling and transportation of western Canadian grain produced for export and in the overall production and marketing of agricultural products in Canada.

Specifically, this interpretation has required that the Committee view as serious any outcomes of the proposed method of payment that could act as impediments to producer decisions with respect to production and marketing, as well as outcomes that could affect incentives for increased efficiency in grain handling and transportation.

The recommended method of payment should result in the producer having the greatest possible awareness of full freight costs in order to ensure that there will be a direct interest and say in the selection and promotion of the most efficient transportation and handling system.

Any payment system recommended should include clear provisions for the railways to be accountable directly to the government for their performance; in the committee's view, this is essential both because of the importance of effective grain transportation to the national interest, and to alleviate traditional western distrust of the railways.

Administrative Feasibility: The Committee has interpreted this criterion as requiring that any recommended system be understood by all concerned and that full consideration be given to the administrative costs of the system. The recommended method of payment should be easily understood.

In total, these criteria required the Committee to look for arrangements for the payment of the government funds committed for grain transportation that would provide many of the benefits claimed for both the "pay the railways" and "pay the producer" approaches, while fulfilling the paramount objective of the legislative mandate.

b. The Legislative Mandate

As noted earlier the section of the WGTA pertaining to the establishment of the Committee reads:

> "The Committee shall examine all matters that, in its opinion, pertain to the method of payment in respect of grain transportation that would be most conducive to agricultural development in Canada".

The Committee had the responsibility of relating alternative methods of payment to agricultural development or growth. Or, put in a policy perspective, since the WGTA is "an Act to facilitate the transportation, shipping and handling of western grain...", the method of payment, as part of western grain transport policy, should be consistent with development and growth objectives for Canadian agriculture. It is generally recognized that each of the major method of payment alternatives i.e. pay the railways or pay the producer, would have specific impacts on the future production mix of western agriculture. However, there is no general agreement on what the growth consequences would be and how they would impact either to the advantage or disadvantage of sectors, regions or Canada as a whole.

Nevertheless it could be argued that in the long run the major payoff to western agriculture and related economic activities would be the impact that the method of payment has on future agricultural adjustments as they relate to economic development or growth. This implies a payments system that would best serve a market oriented and cost effective agricultural sector.

With this view, a large part of the research commissioned by the Committee has been directed towards adjustment and hence development questions. This research includes the impact of the method of payment on (1) adjustment possibilities and income impacts within prairie agriculture specifically with respect to the grain and livestock sector; (2) the impact of possible western adjustment on agriculture in non-prairie regions; and (3) adjustments in grain handling and transportation that could bring about efficiencies that would affect farmers' ability to compete in domestic and export markets.

7. THE INTERPRETATION OF CROW BENEFIT

As defined in the WGTA, the "Crow Benefit" of $658.6 million represents the difference between the estimated full cost of grain transportation by rail and what producers paid under statutory rates in 1981-82. This difference has also been referred to as the Crow gap. In addition the government is committed to sharing in future annual cost increases above specific limits and may contribute additional funds if the shipper share limitation or safety net is activated.

Producers are required to pay the first three percentage points of annual cost increases in rail rates on the base volume of 31.5 million tonnes in the crop years to 1985-86. Thereafter producers pay the first six percentage points of annual freight cost increases on the base volume. The government pays all annual cost increases in excess of those percentages. Producers pay the full cost of transporting all tonnes shipped each year in excess of the base volume.

In addition producers are protected against high freight rates when grain prices are low by virtue of the shipper share limitation or safety net which by 1988 guarantees that the freight rate paid by producers will not exceed ten per cent of the calculated price of a basket of six major grains.

Thus the total government funds available for distribution in support of grain transportation in any given year are the total of: The $658.6 million, plus the cumulative government share of annual cost increases, if any, plus any government contributions under the shipper share limitation.

This total is the fund with which the Committee has been concerned.

Throughout the report the total government funds available for distribution are referred to by the Committee simply as the Crow Benefit.

8. HISTORIC BENEFITS AND COSTS

If the government funds were paid to the railways there would be a continuation of the distribution of Crow benefits and Crow costs, as they prevailed in 1981-82. However, if grain transport rates are increased to compensatory levels and government payments made to producers the question arises concerning how and to whom the fund would be distributed.

It is readily recognized that a Crow Benefit accrues to producers of grain transported under statutory rates. This benefit parallels the $658.6 million Crow Benefit. Yet, in economic terms the total Crow Benefit is more broadly based since the farm gate prices of all statutory grains produced on the prairies, regardless of how marketed, are enhanced by the fact that statutory rates have been below compensatory levels. The higher value of all grain produced has undoubtedly had a positive effect on the value of all land capable of growing statutory crops. If freight rates are increased, farm gate prices of all statutory grains, assuming constant export values, would be reduced, whether exported or not. Hence, there would be a loss in benefits greater than the $658.6 million compensatory fund.

It should be noted that from time to time grain prices on the prairies have fallen below the then prevailing export prices because of surpluses on the prairies. Those surpluses arose for a variety of reasons including bumper crops, low export demand, or inability to move grain off the prairies.

Furthermore, arguments have been presented that not all the benefits flowing from the existence of the Crow Rate have accrued only to western grain producers. Some eastern Canadian interests have asserted that, if grain prices are permitted to reflect full costs of grain transport, there would be benefits to western livestock and poultry producers to the competitive disadvantage of producers outside the prairie region. This would mean that eastern Canadian livestock and poultry producers have benefited from the historic Crow gap.

An essential consideration is to what extent have adjustments and growth taken place in eastern Canada in the last 20 years in response to possible advantages accruing from the feed grain price distortion in western Canada.

However, this broadly based concept of historic Crow benefits is but one side of the "economic impact" coin which the Committee has had to address. On the other side are the losses or disadvantages incurred over time through the maintenance of the Crow Rate. Most visible in this regard is the adverse impact on the western livestock sector and the constraint on enterprise diversification and value-added processing activities. Less visible but at least conceptually important are the historic constraints on efficiency related adjustments in the western grain sector. To the extent that these may have prevailed they represent producer and society borne costs to be netted out of total statutory Crow benefits as derived from past policies.

9. AGRICULTURAL IMPACTS

The Committee has viewed the impacts on agricultural development of alternative arrangements for the payment of the Crow Benefit as crucial in the development of its recommendations. The Committee's legislative mandate requires that it recommend arrangements that will be "most conducive to agricultural development in Canada".

The Committee has commissioned extensive research directed toward the identification and measurement of various agricultural impact consequences of the options put before it. The results of this research have played a major part in the deliberations.

10. CONCLUSIONS

In total, the Committee has interpreted its mandate and criteria as requiring that it identify and recommend a set of arrangements for the payment of the Crow Benefit that will provide, to the greatest degree possible, the main advantages of both the pure "pay the railways" and the pure "pay the producer" arrangements which have been debated at such length throughout the Gilson consultations, the Parliamentary consideration of the WGTA, and its own consultations.

The Committee has been mindful that such arrangements as it may recommend will have some outcomes that cannot, at this time, be identified in any definitive way, and that ongoing monitoring of these outcomes will be required. The Committee believes, however, that within this interpretation of its mandate and the criteria, it has succeeded in identifying a payment policy that is capable of meeting current and anticipated conditions, and of contributing effectively to increased efficiency in grain handling and transportation, and to the development of agriculture in Canada.

CHAPTER II

THE DEBATE ON THE OPTIONS

1. INTRODUCTION

Throughout the Gilson consultations, the Parliamentary discussions leading up to the passage of the Western Grain Transportation Act of 1983, and throughout the consultations conducted by the Committee of Inquiry on Crow Benefit Payment, there has been a continuing debate as to the advantages and disadvantages of alternative arrangements for the payment of the Crow Benefit.

The 'Crow Benefit' as defined in the legislation is the $658.6 million difference between the amounts actually paid by producers through the Crow Rate and the full costs of rail transportation for the 31.5 million tonnes of grain shipped for export in the 1981-82 crop year. It was accepted by the Government of Canada and the various groups involved that this represented an historic entitlement, and that western grain producers should continue to receive an annual benefit equal to that amount to reduce transportation costs.

It was further widely accepted that producers would pay a share of future incremental costs for transporting grain up to the levels shipped in 1981-82, and should pay rates reflecting the full costs of transportation for additional volumes of grain that may be shipped in the future. Producers had protection against precipitous freight rate increases due to inflation and situations in which freight rates were excessive due to unusually low grain prices. As indicated earlier it is the total of these three elements that is referred to by the Committee as the Crow Benefit.

The dilemma was to identify a means of paying the historic Crow Benefit that would, up to the limits specified in the legislation, compensate grain producers who would have benefited, had the Crow Rate been maintained, for the movement to full cost freight rates for statutory grains.

The questions were: To whom should these funds be paid? On what basis should entitlements be determined? What would be the effects on the grain transportation system, on the development of agriculture, and on the position of individual producers?

Generally speaking, the debate was between those who argued that government payments should be made to the railways, who would apply them to the reduction of freight rates for grain actually shipped, and those who argued that the payments should be made to producers, to offset full cost freight rates for all grain shipped. In either case railway revenues would be the same.

Parliament decided in favour of a "pay the railways" option. But concern about the impacts of this payment option on agricultural development led Parliament, in Section 62 of the WGTA, to provide for the establishment of the Committee of Inquiry on Crow Benefit Payment, with responsibility for recommending a payment method in time for it to be included in the scheduled 1985-86 review of the Act.

2. THE VIEWS EXPRESSED TO THE COMMITTEE

The Committee received submissions from proponents of both the "pay the railways" and the "pay the producer" positions. There was disagreement, even within sectors and regions, and among provincial governments as to the most efficacious way of paying the benefit to compensate producers while promoting the development of agriculture and the renewal of western Canada's grain transportation system.

Within western Canada, grain producer organizations were divided in their views and recommendations, with most favouring a "pay the railways" approach. In contrast, producer organizations with livestock, poultry and speciality crop interests favoured a "pay the producer" approach, as did the western trucking interests who made submissions to the Committee. Western provincial governments were not unanimous in their views.

Producer organizations in Quebec favoured a "pay the railways" option, but not all other eastern provinces expressed support for these views or even wished to intervene in what they perceived to be a western transportation policy problem.

Although the method of payment of the Crow Benefit finally recommended by the Committee is unique, providing the main advantages of each with few of the disadvantages of either, the Committee believes it is useful to present here the main arguments put before the Committee by the proponents of both broad alternatives.

The method of payment issue is complex; within the two broad alternatives, there were many shadings of opinion and different approaches put before the Committee. Accordingly, the Committee has chosen not to attempt to present the views of any particular participant in the consultations and deliberations. Instead, what follows is a general overview of arguments made by proponents of the "pay the railways" option on the one hand, and those made by proponents of the "pay the producer" option on the other.

3. THE "PAY THE RAILWAYS" OPTION

The following is a summary of the main arguments presented to the Committee by those who were proponents of the "pay the railways" alternative.

a. The Crow Benefit as a Transportation Subsidy

Advocates of the "pay the railways" alternative argued that only this method of payment would clearly identify the Crow Benefit as a transportation subsidy. This argument is based on a perception of the basic intent of the Crow Benefit payment under the Act, and on a view of the economic consequences of a "pay the producer" approach.

It is argued that the intent of the WGTA, both by title and history, is that the purpose of the Crow Benefit is to "facilitate the transportation, shipping and handling of western grain", and that payment to the railways is the only approach that could retain the Crow benefits as they had been realized in the past by those who actually shipped grain for export. The extension of benefit payments to producers other than those actually shipping grain for export could, it is argued, be viewed as a production subsidy rather than a transportation subsidy.

In the view of those who supported the "pay the railways" alternative, payment of the Crow Benefit to producers, and the possible interpretation of such payments as a production subsidy, could have a number of undesirable effects.

First, it was argued that payments to producers would dilute the benefit received by those who historically used and currently use the rail system. Were the payment of $658.6 million to be divided among all producers capable of producing statutory grain, the acreage based "pay the producer" proposals, the monies received would be insufficient to compensate adequately producers who actually ship grain for export for the benefits lost with the ending of the Crow Rate.

In effect, it is argued, such payments to producers not shipping grain would represent a tax on producers who do. The basic argument here is that, in order to be equitable, the Crow Benefit should be distributed in direct proportion to usage of the railway grain transportation system.

It was also argued that a "pay the producer" option would expose producers to the risk of loss of the subsidy or other adverse policy changes in future. In effect, it was claimed that it would be easier for government to take payments interpreted as general production subsidies away from farmers than to remove clearly defined transportation subsidy payments from the railways.

Finally, it was argued that "pay the producer" approaches could adversely affect trade relations with other countries. Proponents of this view cited the recent United States inquiry into Canadian hog and pork exports, in response to Canadian production subsidies, as a case in point.

b. Undesirable Development Consequences of Other than the Pay the Railways Option

Those who argued in favour of a "pay the railways" approach were aware that one of the main arguments of those who favoured payments directly to producers was that such an approach would be more conducive to diversification, further processing of agricultural products, and hence to economic growth and development in general. In particular, it has been argued that payments to producers are more resource neutral. One of the major direct impacts of a resource neutral approach would be a reduction in feed grain prices in the western region.

"Pay the railways" proponents question the concept of livestock "hurt", that is higher feed grain prices, generated either by the Crow Rate or a "pay the railways" option; they challenge the validity of the various research studies which have been presented as demonstrating both the "hurt", and the potential gains for livestock production that would result from a shift to a "pay the producer" approach.

In essence, their argument is that such studies and forecasts do not relate to market realities, and that they fail to consider the real impacts that would occur at the regional or farm level.

The market realities argument involves an assertion that export market characteristics and opportunities for grain are superior, on both the short and the longer term, to those that exist for livestock. Proponents of the "pay the railways" alternative argue that the outlook for expanded world trade in grain, the prospects for increased grain exports, and the relative stability provided by recent grain markets are all sound reasons for opposing any payment system that would favour adjustments from grain to livestock production. They argue that the major livestock markets in the United States, Japan and the Pacific Rim countries are highly volatile and vulnerable both to competition and to countervailing policies or other trade barriers. All of this, in their view, suggests that any measure which would have the effect of diverting or influencing resources from statutory grain production to livestock production could well be contrary to the interests of prairie agriculture. They argue that net economic gains to the livestock and related sectors would be inadequate to counter losses to grain producers and the dampening of prairie grain production for export.

The differential farm level impact argument claims that disparities could occur among producers and among regions were payments to be made on other than a current shipments basis. It is argued that, because of the diversity in the nature and location of resources held by prairie farmers, there are significant differences in the adjustment possibilities open to producers. Producers or regions who by reason of location, expertise or preference were less able to switch to livestock or other crops would, it is argued, be losers since the payments generated by an acreage based "pay the producer" system would be inadequate to compensate them for losses in historic Crow benefits. According to those who hold this point of view, large areas of prairie agriculture could be adversely affected in this way.

They have, as well, concerns relating to adjustments in cropping patterns that would result from an acreage based "pay the producer" approach. Were the payments, and hence the benefit, to shift from compensation on a per tonne shipped by rail basis to one independent of current shipments, it is argued that producers would shift from lower valued but higher yielding crops such as barley to higher valued but lower yielding crops such as wheat or canola in an effort to maximize the benefits of a fixed, acreage based subsidy. It is claimed that this would distort prairie cropping practices, since freight costs per acre of production would then be lessened, and discriminate against producers with resources that are not easily adaptable to alternative cropping patterns.

There were also concerns about regional equity effects of a pay the producer approach. It was argued by some that payments made to western producers from the federal treasury ought to be available to all Canadian producers involved in similar agricultural production.

c. Impacts on Grain Handling and Transportation Efficiencies

Proponents of a "pay the railways" approach discount efficiency gains that might result from the market accountability features of a "pay the producer" approach.

They argue that the current rates of ongoing rationalization of the grain handling system (a decline of 1584 elevators or 36 percent of the total in the period from 1973 to 1983) and transportation (a reduction of branch lines by some 2500 miles or 13 percent of the total from 1975 to 1984) are close to optimal, and that efficiencies in the system are occurring as rapidly as can be economically absorbed and as producers will accept (Table 1).

In addition, several of the groups supporting the "pay the railways" approach see it as a means of avoiding variable rates for grain transportation being introduced by the railways.

They fear that direct payments to producers would encourage the introduction of such rates. Variable rates, it is claimed, would result in the railways having an undue degree of control over the future configuration of the grain handling and transportation system. These groups question that there would be any measurable benefit to producers, taken as a whole, in terms of system efficiencies that might result.

They also argue that such rates are undesirable because they would diminish the control that producers and their organizations could exert over the rate and direction of future changes in the grain handling and transportation system.

d. Administrative Feasibility

All organizations favouring a "pay the railways" approach contend that there are administrative difficulties, additional costs and unresolved complexities involved in the design and administration of any set of arrangements that would see the Crow Benefit being paid directly to producers. They argue that producers understand and accept the "pay the railways" approach, and that there would be difficulties in obtaining equivalent understanding or acceptance of any alternative arrangements.

e. Accountability for the Railways

Finally, many of those who support the "pay the railways" alternative argue that, in return for rail rates at compensatory levels, the railways have acknowledged a requirement for performance and service guarantees. If funds are paid directly to the railways, withholding of such funds provides an effective sanction in the event that these guarantees are not fulfilled. They have suggested that there is no other means that could ensure adequate direct accountability of the railways for their performance.

4. THE "PAY THE PRODUCER" OPTIONS

The common thread running throughout submissions favouring a "pay the producer" alternative is that a "pay the railways" approach, like the Crow Rate, was a tax on as well as a benefit to western agriculture.

In general, it is argued that the system has been biased towards the production of statutory grains for export rather than permitting the mix of agricultural production that would make the best use of prairie agricultural resources. It is not resource neutral.

It is argued that this has resulted in lower output, lower farm incomes, and a generally less "well off" situation for western agriculture than would otherwise have occurred. Those who hold this point of view also argue that, because the "pay the railways" approach obscures full transportation costs for grain, there is less incentive for producers to demand efficient grain handling and transportation: this is the market accountability argument. Proponents of "pay the producer" point to Gilson's recognition of this argument.

a. The Resource Neutrality Argument

The heart of this argument is that any "pay the railways" approach perpetuates a system that artificially induces the production of statutory grains for export at the expense of alternative agricultural production. Under the Crow Rate, and under a "pay the railways" approach to the payment of the Crow Benefit, it is argued transportation subsidies are paid only on statutory grains and some of their direct products, and not on other products that compete for prairie resources and that must also move to markets outside the region.

Those who hold this point of view question whether the resources allocated to the production of statutory grains for export have realized or are currently realizing an optimum return to prairie agriculture and to the Canadian economy as a whole. Most submissions supporting a "pay the producer" approach argue that they are not; some referred to quantitative studies indicating a "better off" net income return to prairie agriculture through the removal of the market distortions that flow from this export grain subsidy.

The supporters of this position base their argument on two major premises. The first is that the value-added from further processing of crops, including the feeding of grain to livestock, represents a potential for agricultural development that cannot be fully realized in the face of transportation subsidies that lower the net costs of producing and marketing statutory grains for export while increasing the net costs and the farm gate prices of grains to other forms of agricultural production.

The second major premise is that the Crow Rate and any "pay the railways" approach unduly interfere in the individual producer's production and marketing decisions. Implicit in this argument is the view that first, many producers could benefit from utilizing their resources in a different way than they currently do and that second, a multiplicity of free producer decisions as to the allocation of resources in the light of market forces will result in an efficient allocation.

b. The Livestock "Hurt" Argument

Submissions received from livestock organizations in particular emphasized the competitive disadvantage forced on the feeding industry through past and current Crow Benefit policies. The "pay the railways" option results in a feed grain price distortion because export buyers are able to offer farmers a higher price than otherwise would be the case. Livestock feeders and producers documented the alleged current impact with inferences concerning future impacts to the livestock sector and impacts on economic growth given a continuation of the current policy.

Their analysis indicated very significant additional costs to the livestock sector resulting from this price distortion. Assuming that the average feed grain price distortion relates directly to the Crow Benefit (31.5 million tonnes @$20.90 per tonne) the average added costs of feeding cattle and hogs would be about $28.00 and $8.00 per head respectively. This in effect forces feed grain users to compete with a government subsidy. This cost penalty, it is argued, limits the ability of these producers to compete in either domestic or international markets.

Further, these groups argue that the modernization of the grain transportation system may actually add to this competitive disadvantage for the industry. In the past, because of marketing and transportation constraints on western grain, livestock as a residual market for grain has been an extremely erratic industry. Spokesmen for the industry argue that, because of current marketing policies and upgrading of grain transportation facilities, future rail shipments of grain will be such that the full impact of transportation subsidy induced farm gate price distortions will now fall on livestock feeders.

It is argued that the adverse effect on competitiveness together with the lack of resource neutrality will influence prairie farmers away from livestock enterprises and towards the production of grain for export. The multiplier effects of feeding, processing etc. as grain is marketed through livestock will be lost, and the potential for agricultural diversification and development will be blunted.

Proponents of this view argue that cattle and hog feeding offers a substantial market for western grain. A competitive and growing livestock sector would offer a growing and stable outlet for feed grain production. On the other hand, a continuation of current farm gate price distortions would force more of prairie feed grain production into uncertain export outlets.

They also argue that continuation of the payment of the Crow Benefit to the railways would have the effect of promoting development of provincial programs to offset the detrimental effects of a grain export subsidy. Should this occur it would result in a further balkanization of Canadian agriculture.

These groups have also expressed concern that, given a continuation of the current payment system, the distortions in cropping patterns and the weighing of resource use away from livestock products, including cow-calf enterprises, would have an adverse effect on soil conservation practices and further accentuate soil degradation concerns.

It is pointed out that the WGTA, or at least that part of it providing for payment of the funds to the railways, runs counter to government objectives of a grain transport policy which, as stated by The Honourable Jean Luc Pepin at the time the Gilson consultations were undertaken, would "reduce the economic distortion within the agriculture sector stemming from the statutory rate, without recourse to new transportation subsidies for crops not covered by the present statutory rate, or for goods such as livestock and processed agricultural products". This variation from stated government intent is allegedly having an adverse effect on investment decisions made in western Canada within the livestock production/processing complex.

Submissions from organizations representing livestock feeders indicate that they share an optimistic perspective of the future of livestock and red meat markets compared with market characteristics and prospects for grain exports. Already competing in United States markets, particularly those in deficit west coast markets, it is argued that locational advantages, freight rates lower to United States west coast markets than to eastern Canadian markets, together with a removal of the domestic feed grain distortion would permit the western livestock industry to compete and fully exploit available export market opportunities on a continuous basis.

c. Efficiency of the Grain Transportation and Handling System

The potential for efficiency gains in western grain movement if payment of the Crow Benefit was made to producers was a major argument in all the submissions supporting this option. It was evident that most submissions viewed efficiency gains as not achieving their full potential unless accompanied by variable rail rates.

The central thesis of those organizations representing grain growers who supported a "pay the producer" approach is essentially that payment of the Crow Benefit to producers would allow them to choose a least cost grain handling and transportation system. It is argued that under the current system transportation costs are hidden. Only a small portion is paid directly by farmers hence there is little apparent economic incentive for producers to follow practices which would reduce their handling and transportation costs. The essential argument is that if the full cost of grain transportation is obvious to producers they would search for the most cost-effective method of marketing grain. Given the current "pay the railways" policy the view is held that producers are locked into a relatively inefficient system served only by the railways at statutory rates regardless of cost variations within the system.

It is significant to note that organizations with grain interests favouring a "pay the producer" option are of the opinion that if producers are given the opportunity to choose the transportation and handling configuration that would be lowest cost to them, as well as to make production and marketing decisions independent of Crow Benefit payments, then over the longer run the benefits to grain producers would exceed any additional costs that might result from a change in policy. In addition this would be consistent with the international competitiveness and further development of prairie agriculture.

In the view of the trucking industry the opportunities for intermodal competition in grain handling and reduction in grain transport costs are substantial, particularly if railway rate structures permit variable rates. In addition efficiencies would be achieved through added flexibility provided by trucking. The visibility of actual grain transport and handling costs would permit producers to exercise entrepreneurial choice among alternative transportation and handling facilities.

The trucking industry also points out that the "pay the railways" feature of the WGTA rejects the principle of equal treatment as set out in the preamble to the National Transportation Act of 1967 which states:

> "It is hereby declared that an economic, efficient and adequate transportation system making the best use of all available modes of transportation at the lowest cost is essential to protect the interests of the users of transportation and to maintain the economic well-being and growth of Canada, and that these objectives are most likely to be achieved when all modes of transport are able to compete "... ..." regulations of all modes of transport will not be of such nature as to restrict the ability of any mode of transport to compete freely with any other modes of transport".

d. Administrative Feasibility

Most of the producer organizations supporting a "pay the producer" option supported the Producer Freight Entitlement proposal submitted to the Committee by the Grain Rate Reform Committee. They argue that although complex it is within the realm of administrative feasibility, and that once established, its ongoing administration would be simple. This proposal is assessed in a following section of the report.

5. THE VIEWS OF WESTERN PROVINCIAL GOVERNMENTS

Submissions were received from the Governments of British Columbia, Alberta, Saskatchewan and Manitoba. The provincial governments, particularly Alberta and Manitoba, expressed different views on how and why the Crow Benefit should be paid to either the railways or producers.

The Government of British Columbia supported direct payments to producers.

The Government of Saskatchewan's submission contained the caveat that recommendations regarding who is to receive the Crow Benefit must relate to other federal policies in agriculture, transportation, economic development and trade. In recognition of the lack of consensus among Saskatchewan agricultural organizations and of the positive advantages inherent in each of the options, the Saskatchewan government supported an equal sharing of the Crow Benefit between producers and railways.

In contrast, the Government of Alberta argued strongly for a "pay the producer" option. The Government of Manitoba argued for the retention of the current "pay the railways" system. Each submission documented the reasons for their position with attention given to the mandate and criteria of the Committee.

6. THE VIEWS OF EASTERN CANADA

Submissions were received from the Governments of Ontario, New Brunswick and Prince Edward Island, and producer organizations in the Province of Quebec, a joint submission by l'Union des Producteurs Agricoles and la Coopérative Fédérée de Québec. All objected to the payment of the Crow Benefit to producers on the grounds that it would encourage western livestock and poultry production to the competitive disadvantage of eastern producers. Both the Prince Edward Island and Quebec organization briefs presented statistics related to the perceived impact on the livestock and poultry industries in their provinces.

In particular, the joint submission of producer organizations in Quebec presented arguments expressing opposition to the federal government pursuing a policy of regional agricultural development that would be beneficial solely to the prairie provinces. In their view, the concepts of neutrality and equity require additional analysis of the future impact of alternative methods of payment on Canadian agriculture as a whole rather than in terms of its impact solely on western Canada. They reject the analysis done to date which suggests that alternative methods of payment would have a negligible impact on the eastern livestock and poultry sectors.

In their view payments to prairie grain producers and non-grain producers, as would occur under acreage payments and Freight Entitlement proposals, would result in a sudden artificial drop in grain prices. They claim it would be artificial because it would result not from market forces but from a federal subsidy to western producers seriously jeopardizing the future of the Quebec livestock industry.

In addition they point out that the eastern livestock industry grew up in a competitive environment directly affected by the Crow Rate, and argue that any major adverse changes in that environment which result from public policy require offsetting government measures to ensure the continued strength of their industry.

The Quebec producer organizations point out that through recent years the comparative advantage in livestock and poultry production has moved in favour of western Canada. As evidence of this they cite the widening differential in feed grain prices, west and east, to the extent that relative feed grain and livestock prices favour interprovincial movement of meat and meat products rather than grains. Payment of the Crow Benefit to producers would compound what is now considered a competitive disadvantage to Quebec producers. The brief notes that recent production statistics point to a more rapid increase in hog production in the west than in Quebec.

The Quebec brief also takes issue with studies that have not projected adverse market consequences arising from increased livestock production in the west. In their view the current and prospective grain situation in the United States as well as Canada will lead to saturated domestic and export livestock markets as well as defensive measures by the United States against Canadian imports. The impact on the Quebec hog industry is of particular concern in view of its relative importance in Quebec agriculture and the importance of export markets to the industry. It is argued that expanded hog production in western Canada into an already highly competitive and saturated domestic and export market cannot help but impact adversely on the Quebec industry.

Furthermore, Quebec producers perceive adverse effects on supply managed industries, poultry and eggs in particular, if the Crow Benefit is paid to western producers. The cost of production for these products would be lowered in western Canada having the effect of lowering cost of production based prices, such as eggs, across Canada and the tendency to favour movement of quota to western provinces.

Although Quebec's objections are related specifically to an assessment of an acreage based Crow Benefit payment to western farmers, it is made clear that payment to the railways is the only alternative acceptable to them. Other alternatives would have the developmental connotation of subsidizing western agriculture with federal funds to the disadvantage of other regions.

7. INITIAL COMMITTEE VIEWS OF THE DEBATE

The debate, and the various submissions presented to the Committee were valuable. They contributed to the development of an understanding of and sensitivity to the issues and concerns involved among Committee members. The Committee was impressed that proponents of both alternatives were able to identify significant advantages for the approach each favoured, and disadvantages relating to the alternative each opposed.

In the Committee's view, the chief advantages of the "pay the railways" option are its administrative simplicity and the fact that retaining this approach is closest to the status quo. It is already familiar to producers.

Its main disadvantages relate to its lack of resource neutrality which interferes with agricultural development, and the fact that it does not promote direct market accountability on the part of the grain handling and transportation system to producers.

The chief advantage of the "pay the producer" option, in pure economic terms, is its resource neutrality, which would contribute to optimum agricultural development, and the extra impetus to improved efficiency that would result from making full freight costs obvious to the producer. The Committee clearly recognized the fact that a "pay the producer" approach would result in producers having a much greater direct say in the nature and rate of changes that would occur in the grain handling and transportation system. This in itself is a very strong advantage as well as allowing farmers greater scope to make production and marketing decisions without artificial incentives or constraints.

The disadvantages are that, if it is acreage based, the additional freight costs would, because of the dilution of the benefit, only partially compensate producers; there would be a lack of direct accountability for the railways; and at the time the Committe's discussions were taking place, there were significant unresolved administrative difficulties associated with this option.

The Committee's effort to resolve this debate, in accordance with its mandate and terms of reference, has focused on the identification of an option that would provide as many as possible of the benefits of each alternative, while eliminating as many of the potential disadvantages as possible.

CHAPTER III

ASSESSMENT OF THE ECONOMIC IMPACTS

1. BACKGROUND

The purpose of this chapter is to assess the economic impacts of the pay the railways and the pay the producer options.

Under the Western Grain Transportation Act (WGTA) the Crow Benefit is paid directly to the railways. Grain prices on the prairies move in relationship to export prices at Thunder Bay or Pacific ports less the full costs of handling and storage and less the producer share of the cost of transporting grain to the ports. The producer share of transportation costs is reduced by the government payment of the Crow Benefit to the railways. Hence such a system normally results in higher farm gate prices than would otherwise be the case. In 1981/82 this is estimated at an average of \$20.90/tonne. Assuming no transportation or export market constraints, farm gate prices for statutory crops would be established in this fashion, regardless of end use. This generally occurs despite the varying pricing characteristics of the Canadian Wheat Board and off-Board grain sales. For a review of the imperfections in the off-Board feed grain market see a study commissioned by the Committee, Rosassen and Schmitz (1985). On the other hand, if the Crow Benefit were paid to producers, the full cost of grain transportation to export ports would be reflected in farm gate prices. Again, regardless of end use, prices for statutory crops at the farm gate would reflect export prices less full transportation costs. It is obvious that changing the method of payment in favour of direct payments to producers reduces farm gate prices for all grains. The Crow Benefit payment would offset in part the increased transportation costs but would not affect relative prices since the receipt of the payment would be independent of producer decisions. However, it would impact on the net returns for producers.

These lower farm gate prices for grains and oilseeds combined with the full costs of moving grain to export points, are the key elements which cause the economic impacts to differ between pay the railways and pay the producer alternatives. The agricultural impact arises because lower grain prices under the latter alternative would reduce the profitability of grain production and increase the profitability of livestock production in western Canada. This change would have secondary impacts on farm incomes and input use. To the extent that there is, or would be, regional competition for livestock or livestock products, (i.e. movement of product between eastern and western Canada) the economic impact could extend to provinces outside the prairie region.

The transportation and handling system impact arises because producers would pay freight rates several times higher than currently being experienced. While the method of payment, by itself, does not imply system changes, it could be expected that producers would have an incentive to cut costs either by the use of alternative modes of transportation, by applying pressure for changes in the rate structure, or by an alteration in their production mix. Paying the producer may tend to modify the rate of change in the grain transportation and handling system. These transportation system impacts are discussed in Chapter IV.

The extent to which agricultural and transportation impacts would materialize depends upon the proportion of the Crow Benefit that is paid directly to producers as well as how it is paid to producers. A compromise policy with part of the benefit paid to producers and part to the railways would alter the economic impacts depending on the proportions allocated. As producers pay a higher proportion of the costs of moving grain, the impacts would reflect adjustments more closely related to those which would occur in the absence of any government payment.

Similarly, the full extent of the agricultural impact would be realized only if the benefits are paid to producers independent of production and marketing decisions, i.e. on a resource neutral basis.

2. AGRICULTURAL IMPACTS

In accordance with the legislative mandate embodied in Section 62 of the WGTA, the Committee commissioned studies to determine the impacts on agricultural development of various methods of payment.

These studies examined the impacts of the alternatives which, as the Committee began its deliberations, had been considered throughout the discussion of this issue. In the case of the pay the producer alternative, these assumed a resource neutral formula for payments.

The economic effects of the Crow Rate on grain transportation have been a major issue within prairie agriculture since the realization that statutory rates biased resource allocation within the prairie region toward exporting statutory grains. For a comprehensive review of the literature on the issue see Rosaasen and Schmitz (1985). Attention then focused on alternative methods of paying the Crow Benefit. During and following the Gilson inquiry of 1982, the method of payment debate centred around the economic impacts of the Gilson proposal of paying the producer through acreage based entitlements. Two major quantitative studies of the Gilson proposal and a pay the railway policy were available, Kirk (1983), and Chase Econometrics (1982).

The passage of the WGTA with the setting out of new parameters for statutory grain rates, the identification of the amount of the Crow Benefit, and its payment to the railways has provided a further departure point for assessment of alternative methods of payment. In fact, as set out in the WGTA, this became the mandate of the Committee.

The following assessment of the possible economic impacts of alternative methods of payment of the Crow Benefit draws heavily from research studies commissioned by the Committee and other studies which the Committee received. The list of studies is in the Appendices.

3. THE PRAIRIE REGION

a) Agricultural Output and Net Farm Income Responses

A study by Agriculture Canada for the Committee provides quantitative estimates from an econometric procedures model which incorporates historical relationships, outside forecasts, and possible output responses to the simulated economic conditions between the years 1983-84 and 1995-96. Tables 2 and 3 summarize basic model assumptions and results.

Given the assumptions built into the model the production of grain is projected to increase under the present policy of WGTA from 41.7 million tonnes in 1983-84 to 51.5 million tonnes in 1995-96 or 1.8 percent a year. The average unit price for grain is projected to increase from $193.41 per tonne in 1983/84 to $249.94 per tonne in 1995/96, an increase in current dollars of 29 percent over the period or 2.16 percent a year. Handling costs were assumed to increase 5 percent annually, thus moving from $17.31 per tonne to $31.08. Rail transportation costs were also assumed to increase by 5 percent a year. However, since the Crow Benefit is paid to the railways under WGTA, the actual freight rates paid by producers are estimated to move up from $5.36 a tonne in 1983-84 to $31.85 a tonne in 1995-96, assuming a movement of 40.6 million tonnes in 1995-96.

In Table 3, assumptions regarding livestock output and prices are presented in the same fashion for both eastern and western Canada.

Four alternative policy options were analyzed and compared with changes projected given the current pay the railway policy embodied in the WGTA. All options assume that payments to producers are made on a resource neutral basis. The four options analyzed in the Agriculture Canada study were: a phased in 50:50 and an immediate 80:20 distribution of the Crow Benefit to producers and to the railways; the Gilson proposal of a six-year phasing-in period to a 81:19 distribution; and a policy whereby all of the benefit payments would be made to producers, the compensatory rate option. The year 1995-96 has been selected to reflect a representative situation after adjustments to the policy changes have taken place. The results of the analysis for the fully compensatory option are shown in Table 4 (Value of Crop and Livestock Output, Western Canada) and Table 5 (Aggregate Realized Net Income Western Canada by Province). For analysis of the other three options see the Agriculture Canada studies commissioned by the Committee. The other options gave results consistent in direction but varied in order of magnitude.

The interpretation of these tables requires noting that the values (+ or -) for the compensatory rate option measure changes from the projected situation in 1995-96 given a continuation of the current pay the railway policy. For example, it is projected that under the current payment policy, the value of prairie grain output would increase by 58 percent and the value of livestock output would increase by 76 percent by 1995-96. The value under the compensatory rate option represents changes from these projected increases. In other words they represent deviations (+ or -) from projected rates of growth in grain production, grain exports, and livestock production that may occur with the WGTA pay the railway opinion still in place.

The combined effects of price changes and output adjustments presented in Tables 2 and 3 appear in Table 4. The value of grain produced falls under pay the producer option as less grain is produced (Table 2) but because more higher valued crops such as canola are produced the net decrease in value is less than the drop in volume. The net effect is only a negligible reduction (0.2%) in the value added by the grains and oilseeds sector. Similarly the volume exported drops more than the value because higher valued crops replace some of the barley no longer exported. Table 4 indicates a reduction of $146 million less exports because more feed grain is consumed in the prairies when producers are paid rather than the railways. Projections for hog and beef production (Table 3) exceed the increase in value because of a 2% drop in livestock prices. When producers are paid directly the change in the value added by the agricultural sector to the prairie economy is estimated to increase by $368 million. The change in net farm income that arises because of different methods of payment cannot be derived from Table 4 because not all changes in farm expenditures are accounted for nor does the government payment enter into the estimates. Net income estimates of different methods of payment appear in Table 5.

Table 5 compares the differences in western Canadian net farm incomes from grain and livestock in 1995-96 predicted by the model if the grain shipper pays the full compensatory rail rate, instead of only the part defined under the WGTA provisions. Besides accounting for differences in revenue, the income estimates also measure any changes in expenditures by farmers.

Between 1983-84 and 1995-96 the model predicts farm incomes will increase under any rail payment option. Continuation of the present policy shows a western Canadian increase from $1,895.5 million in 1983-84 to $2,745.2 million in 1995-96. If the producer pays a full compensatory rate, the increase in western farm incomes will rise by a further $579.6 million to a total of $3,324.8 million in 1995-96. This forecast assumes that producers directly receive government payments rather than paying the money to the railways as under the WGTA.

Thus, under the conditions built into the model, the net farm income effect of the producer paying a fully compensatory rate is significantly above the gains expected by continuing the present method of payment for rail shipments of statutory grain.

Across the west by 1995-96 the gains are all positive, but uneven. In nominal 1995-96 dollars Alberta/B.C. gains the most, at \$259.9 million, Saskatchewan next, at \$175.8 million, and Manitoba least, at \$143.9 million.

The differences reflect the importance of statutory grain production relative to the size of the agricultural sector in the separate provincial economies. Manitoba, with the smallest grain and livestock sector, experiences the largest percentage gain over its own base, 35 percent; Alberta, with the next largest grains and livestock sector sees a 25 percent growth; and Saskatchewan, larger than the other two, has a smaller percentage gain, at 14 percent.

A breakdown of western Canadian grains and livestock sector growth into provincial segments is useful. However, by itself it obscures differences in regions and sectors within a province. There may well be as much or more growth variation between regions within a province as between provinces.

b. Committee Comments on the Agriculture Canada Study Results

Disagreement on the direction of agricultural impacts revealed in the study is not likely. The adjustments are economically consistent with an increase in producer out-of-pocket freight costs and a related decline in farm gate grain prices. Reducing feed grain prices would reduce the production costs of the western livestock industry and is likely to stimulate expansion. Barring major adjustments in grain production, the increased feeding of livestock would result in less grain available for export. Furthermore, as farm gate grain prices fall, adjustments out of statutory crop production would not be large. The probable area of adjustment would be from grain to forage, on the land only marginally suited for grain production. More forage would be produced by altering the relative income opportunities in favour of cattle production. Furthermore, the Agriculture Canada model results are generally consistent with Lerohl (1984) and a study prepared for the Committee by Rosaasen and Schmitz (1985).

What has been questioned is whether the model assumptions conform to reality and, most importantly, whether the magnitude of the adjustments can be accepted with some degree of confidence. Unfortunately, modelling exercises such as the Agriculture Canada study are complex, not readily understand by non-economists, and require a multitude of assumptions. For those reasons it is easy to find reasons for disputing model specifications and results.

Notwithstanding the above, interpretation of model results requires the understanding that it is not the absolute values of the estimates generated but the relative values that are important. The differential impact between options are of more interest than the accuracy of the forecasts. As in any study of this nature there is a margin of error associated with each number. Consequently large numbers and large differences between numbers may be significant whereas small differences between numbers may be viewed as portraying doubtful relationships.

Some of the model assumptions can be debated.

a) Assuming the cause and effect relationships as measured through historical time periods are indicative of those which would occur as a result of a change in the method of payment is of immediate importance. This assumption is most relevant to the livestock supply responses generated by the model which in turn relate to expectations concerning value of product and farm income changes. Historical relationships used in the model between price changes and production adjustments have taken place in a market environment with associated uncertainties. Past relationships have reflected varying market conditions. The drop in feed grain prices following freight rate increases would be recognized by producers as a permanent adjustment and incorporated into their income expectations. This suggests that the livestock supply response, for hogs in particular, may be greater than that estimated by the model.

On the other hand, structural changes within the livestock industry in recent years such as an increase in building and equipment, the requirement of specialized technology, and the increased importance of economies of scale may serve to dampen livestock production increases. There are no satisfactory answers to this dilemma and probably will not be until "after the fact". In the meantime, model results are the only quantitative estimates available on which to base decisions.

b) The second set of debatable conditions are the long term forecasts which the model requires. Price forecasts for both grain and livestock are essential to the model as are the assumptions that neither grain nor livestock markets external to the prairie region will be unduly affected by constraints or disruptions. Livestock market assumptions imply that increased supplies can be absorbed in North American markets with price effects dampened by the size of the market. Grain market assumptions are that competitive conditions in export grain markets will parallel those of the past. All of these assumptions have been challenged.

Many factors can influence the forecasts. For example concerns have been expressed about the slow growth in consumption of red meats and the continued accessibility and viability of external markets. There are also concerns on the grain market side. Because Canada is essentially a price taker in world markets, the potential for production increases in other countries, the concentrated structure of export markets, and the impact of EEC and United States policies have been identified as concerns.

Past exercises in projecting the long term path of economic variables, particularly those relating to agricultural production and prices, have not been sufficiently accurate in absolute terms to inspire a great deal of confidence in those being made at the present time. Agriculture remains an industry subject to instability as a result of weather, geography, biological hazards and lags, as well as changes in both internal and external policies. However, the crucial question is not whether the forecasts and assumptions in the Agriculture Canada model approximate those which will be realized, but whether alternative forecasts, including an extremely pessimistic outlook for both livestock and grains, would alter the basic conclusion of the model i.e. that payment of the Crow Benefit to producers would increase both the total value of agricultural output and the aggregate net farm income of western Canadian farmers. It is unlikely that changing the model assumptions would alter the basic conclusions except possibly in magnitude.

Two points can be made concerning this debate about the importance of the forecasts. First is the question of whether livestock industry benefits should vary according to whether or not the industry is in a profitable position. Inherent instability in livestock prices and production traces to reasons other than the method of payment. Lower feed grain prices are as important when producers are showing a loss as when they are showing a profit.

Second, over the longer term, the welfare of the grain and livestock sectors is interrelated, with grain markets playing the dominant role. A change in the method of payment must be viewed in this context. Because of biological lags, relative producer returns in grain versus livestock can and do diverge for short periods of time, with longer periods involved for cattle than for hogs and poultry. However, when livestock adjustments occur they relate generally to grain market conditions. The sequence of events in both the western grain and livestock sectors through the turbulent 1970's is ample evidence of this.

Hence, over the longer term, it does not make a great deal of sense to project gloom and doom in one sector of western agriculture but buoyant conditions in the other. This suggests that contrary to views expressed in some submissions to the Committee, errors in the absolute levels of forecasts do not invalidate the differential impacts from the method of payment as established by the Agriculture Canada study.

c. Agribusiness Impacts

Changes in the method of payment resulting in lower farm gate grain prices have potential impacts on related agribusiness activities. There are several dimensions to these impacts including:

i) changes in farm input expenditures and processing requirements as price changes result in adjustments in grain production, grain marketing, and livestock production; and

ii) changes in the profitability of grain and oilseed processing, particularly for products consumed within the prairie region.

i) Farm Input Expenditures and Processing Requirements

Assuming, that a pay the producer option would have a relatively minor effect on total grain production, it would not be expected that there would be a significant effect on grain sector input expenditures, i.e. fertilizers, pesticides, and herbicides. As shown in Table 6, expenditures would decline from 1995 current policy forecasts, but only slightly. Table 6, also shows a net increase in farm machinery expenditures. Any possible decline in machinery expenditures in the grain sector would be more than compensated for by increased machinery expenditures generated by the projected livestock sector expansion.

Another possible decline in agribusiness and agricultural service industries relates to the projected diversion of grain from export to the livestock sector, as well as possible grain production declines. This decline in grain exports could mean a reduction, from the levels which would prevail under the current pay the railway policy, in elevator and rail service requirements.

On balance it might be expected that the major value added activities in western Canada resulting from a change from pay the railways to pay the producers would be those accruing from the value of the change in hog output of 15 percent and the value of the change in beef output of 19 percent under the compensatory rate option. However, the value added in terms of additional feed processing and meat processing activities is difficult to assess, particularly the latter. If the entire increase in hog and beef output was slaughtered and processed on the prairies, then the increase in those activities would be proportional to the increase in output. However, the extent of this increase depends on the ability to exploit external markets for beef and pork rather than for live animals, as well as on the relative competitiveness of the prairie meat processing industry. Although western Canada, particularly Alberta, appears to have a locational advantage in red meat deficit United States Pacific coast markets, it is uncertain to what extent these markets can be exploited. For a review of the market potential and related problems see the study by Rosaasen and Schmitz (1985).

ii) Changes in Profitability of Grains and Oilseeds Processing:

Since many grain related processed products are now included under statutory rates as well as the natural grains, a change in the method of payment would have little or no effect on the relative profitability of processing products for sale outside the prairie region assuming no change in Canadian Wheat Board policies on regional pricing. A possible exception could be a minor regional redistribution in canola processing profitability in favour of the western prairies and Ontario arising from the practice of pricing canola basis Vancouver less handling costs and freight rates.

However, similar to feed grain pricing, the current pay the railways policy results in the benefit being incorporated into prices for grains and oilseeds processed and consumed within the prairie provinces. Paying the producer would lower farm gate grain prices and in turn lower input costs to processors for products destined for prairie consumption. It is difficult to estimate the quantitative value of this savings. Assuming about 2 million tonnes of wheat are milled for domestic consumption and a western share of domestic consumption is proportional to population, the saving could amount to \$10 to \$15 million for flour milling alone. How the savings would be distributed depends upon Canadian Wheat Board pricing policies. Nevertheless, it could be argued that this does provide an added incentive for processing activities in western Canada. It could also provide an incentive for increased utilization by livestock of locally processed products such as canola meal.

It should be noted that under a pay the producer option processors would pay less for the grain, but would then be required to pay the full compensatory rate when products are shipped for export.

d. Regional and Farm Level Impacts

Most studies of the impact of alternative Crow Benefit payment policies, have been macro studies i.e. they have been based on average responses across prairie regions and on average distance related grain freight rates. Other than portraying aggregate adjustments, these studies mask the decisions faced by individual farmers with different resource bases, enterprises and combinations of enterprises, and locations within the prairie region. A major concern for producers is how the change in policy would affect them. To understand the adjustment process that might be set in motion, it is necessary to examine opportunities for change at the farm level given the wide range of agronomic conditions, enterprises, and freight rates across the prairie region.

The net farm income estimates in Table 5 give a broad perspective of provincial impacts as they relate to agronomic conditions and the relative importance of grain and livestock enterprises. Saskatchewan, with a large volume of cash receipts originating from statutory grains, would rely on compensatory payments to a much greater extent than would the other provinces if the Crow Benefit were paid to producers. This observation would equally apply to regions within provinces. Differences within provinces would be as important as those between provinces.

In Table 7, the analysis was extended to simulate the impact of producer payments on various types of farms. The farms varied by province, by soil zone, and by enterprise and production mix (with the exception of Alberta cattle feeding enterprises).

The farm income data in Table 7 assumes the same price projections as in the aggregate models. The significance of the analysis is not in the absolute values but in the comparisons of changes in net incomes across the various enterprises and enterprise combinations. In general the data show that those farms highly or solely dependent on grain sales will have lower net incomes relative to the pay the railways option. Those farms feeding the grain they produce and purchasing additional grain will have higher net incomes. The results of this analysis are not surprising given the anticipated drop in farm gate grain prices caused by a change in method of payment.

In the farm level impact analysis, the pay the producer option approximates payments based on a land capability basis as recommended by Gilson. The data in Table 7 help identify farm level costs and benefits across the diversity of prairie agriculture. The small losses accruing to specialized grain producers are attributable to dilution, i.e. the allocation of benefits to other than export grain shipments, and the increased real costs of shipping grain. The larger benefits to livestock producers trace to both lower grain prices and payments on an acreage base. If payments to producers are not based on land productivity there would be a different distribution of costs and benefits.

A major qualification to the use of these farm level models as a means of identifying benefits and losses from a change in the method of payment is that the analysis does not reflect possible adjustments that producers might make as a result of the policy change. A large number of grain-livestock farms or farms capable of having combined enterprises could make adjustments from grain to livestock such that net incomes would be higher than noted in Table 7 under the pay the producer option. Nevertheless, the fact remains that from farm to farm a change in method of payment would have varying effects on net income.

Schmitz and Rosaasen identify a further regional impact. Using the old Crow Rate as a base, they point out that under the compensatory rate option and using the new rate of 5 times Crow, rates would increase from $3.16/tonne to $15.80/tonne at Winnipeg. For more distant shippers, such as at Lloydminster Saskatchewan, rates would increase from $5.32/tonne to $26.60/tonne. Hence the compensatory rate option would result in producer freight costs rising $12.64/tonne at Winnipeg and $21.28/tonne at Lloydminster. As freight costs rise, with producers picking up all or part of inflationary adjustments, this difference is accentuated. Hence, given the current distance related freight rates, the incidence of increases in producer out-of-pocket costs is more extreme at points more distant from export ports. These differential increases are offset in part by the benefit payments, which also are adjusted to reflect distances to port.

The significance is that at more distant points, for example near the Saskatchewan/Alberta border, producers would have more incentive to increase livestock output than producers closer to export positions. Not only would grain prices be relatively lower, but assuming that benefits to cattle feeding will be passed through to the cow-calf sector, there would be a greater incentive to alter soil use on low productivity acres in favour of forage production. The specific adjustment characteristics depend on a resource neutral system of payments.

A further distance related adjustment would be in terms of the production mix of statutory crops. Schmitz and Rosaasen present data to illustrate that, at more distant shipping points, there would be an added incentive to grow lower volume, higher value crops such as canola.

4. EASTERN CANADA

The major impact on eastern Canadian agriculture is transmitted through competition in red meat markets. This assumes that a change in the method of payment to a producer payment would promote increased cattle and hog production in western Canada which would be sufficient to have an adverse effect on prices in North American and eastern Canadian markets. A further impact might be perceived with respect to supply managed poultry products. However, the poultry industry impact depends on the extent that lower feed grain prices in western Canada would alter national cost of production pricing formulae and/or result in changes in provincial market shares.

A change in the method of payment in western Canada would not have a significant impact on feed grain prices in eastern Canada since eastern feed users have the assurance that eastern feed grain prices cannot exceed corn competitive rates.

The Agriculture Canada impact model included a simulation of the possible effects, by 1995, on farm output and realized net income from hog and beef production in eastern Canada. These results are shown in Tables 8 and 9. Relative to projected livestock output and related net income under the current payment policy, the pay the producer option indicates a small decline in eastern livestock output and net incomes from cattle and hog production.

Under the compensatory rate option the value of the decrease in livestock output in 1995 is projected to be about one percent below the value of output projected under the WGTA baserun.

The decline in net farm incomes from livestock production is estimated at 1.4 percent for all eastern provinces; 1.6 percent for Ontario, 1.0 percent for Quebec, and 1.5 percent for Atlantic Canada. In other words the rate of growth in net farm income in eastern Canada is projected to increase slightly less than the 74 percent increase projected between 1983-84 to 1995-96 under the WGTA baserun. These relatively small negative impacts on eastern Canada are estimated to be allocated 69 percent to Ontario, 23 percent to Quebec, and 8 percent to Atlantic Canada.

As with all the results of the Agriculture Canada model, the absolute values indicated rely on assumptions that may or may not materialize. For eastern Canada the size of the numbers generated makes their significance questionable. First, it does not require a very high probability of error to change them significantly either up or down. Second, the numbers are generated through a sequence of market interactions, including United States markets, which require additional assumptions. For these reasons the possible impacts on the hog and cattle industries are examined in more detail below.

a. Hogs

Hog marketings by province of origin, for selected years 1972 to 1984, are shown in Table 10. The different production patterns, west and east, are notable. In eastern Canada, hog production increased almost continuously to 1980 with a levelling off in recent years. In particular, hog production in Quebec more than doubled between 1976 and 1980. In contrast, hog production in the west in recent years has not yet reached the level of the early 1970's. The volatility of production in the interim is a notable characteristic. Hog production in the west fell by about 40 percent from the early to mid 1970's before commencing an upward swing in the late 1970's. In terms of shares in national production, in 1972 the west produced 45 percent, the east 55 percent; in 1984 these proportions had changed to 30 percent and 70 percent respectively.

In terms of hog and pork markets the most significant development of the 1970's has been the change in eastern Canada from a pork deficit to a pork surplus area. This has resulted in the severing of the historical relationship between hog production and prices in western and eastern Canada. The east is no longer a market for western pork. A related development has been the movement of pork and hogs, in both the west and the east, to export markets. In other words the trade flows, with the exception of pork exports to Japan have become north and south rather than east and west, Hay (1984). Exports to Japan were 26 percent of total pork exports in 1983. However this does not alter Canada-United States price relationships for hogs. This has placed hog production in both western and eastern Canada on a price competitive basis in United States markets.

Pork exports and imports by region are shown in Table 11. It can be noted that the major proportion of pork exports now originates from eastern Canada. Live hog exports which reached substantial numbers in 1984 originate from both the west and east. In fact exports of pork from western Canada in 1983 were less than in 1972. There was a period during the mid to late 1970's when the west was on a pork deficit basis.

The impact of changing production patterns and reliance on export markets on relative hog prices in the west and east is shown in Table 12. In the early 1970's, eastern Canada was a pork deficit area. Eastern producers enjoyed a price premium over western producers approximately equal to the costs of transporting pork from western to eastern Canada. The change of the east from a deficit to a surplus area has eroded this premium. Eastern hog prices are now on an export i.e. freight out basis. This relative decline in eastern prices has lowered the east-west price differential to the point that transportation costs make significant west-east trade in pork unlikely.

The current patterns of regional hog production and pork and hog trade provide a basis for evaluating the impact which a change in the method of payment might have on relative hog and pork markets. Assuming that a lowering of feed grain prices in western Canada would improve the competitive position of the western hog industry, this improvement will be with respect to export markets. The extent to which eastern Canada is a surplus area as well as the relatively narrow price differential between western and eastern markets makes a return to west-east trade in pork unlikely.

Hence any impact on eastern Canada of a change in the method of payment as it might affect western hog production will be filtered through export markets. One could note that a 10 percent change in western hog production would amount to about a 3 percent change in Canadian and less than a 0.5 percent change in North American hog production. Furthermore, if this increase requires penetration of export markets it would still place pork exports from the west at less than one third those originating from eastern Canada.

Although the hog supply response in western Canada to a change in method of payment is very much open to question, it should be noted that this does not necessarily mean that additional pork would be exported. Given the historic volatility of western hog production, attributable to influences other than grain freight rates, it could under certain circumstances, lower the likelihood of pork imports into western Canada, bearing in mind that the west was a pork deficit area 1976-1978. The essential point is that the competitive position of the western hog producer is enhanced regardless of market outlet, with very little or no probability that market outlets will include eastern Canadian markets.

Based on the above analysis, it can be concluded that a change in method of payment would not have a significant impact on the eastern hog industry. This is, of course, contrary to the view expressed by some. The view that a lowering of feed grain prices to western hog producers would widen the differential between feed prices paid by western and eastern producers is quite correct. There is also the argument that it represents a change in government policy to the advantage of producers in one part of the country but not in another. Others make the point that it represents removal of a disadvantage.

However, the arguments of changing the method of payment having a significant negative impact on eastern hog production are highly questionable. The magnitude of pork exports from eastern Canada has placed the east on a price export basis, i.e. United States prices less transportation costs, regardless of any feed grain price reductions that might occur in western Canada. Arguments that the feed grain price differential west and east is now such that movement of pork rather than grain is favoured has little or no meaning unless the hog industry in eastern Canada declines to a deficit position and hog prices are restored to a freight-in basis. This would require a 25 to 30 percent reduction in eastern hog production.

b. Beef

Unlike pork, there is west-east trade in both cattle, mainly feeder cattle, and beef as well as two-way trade with the United States. Interprovincial competition exists for all segments of the cattle industry. The general level of prices, both west and east, is largely determined in the broader North American market and whether Canada is on an export or import basis.

Western Canada, having close to 80 percent of Canada's beef herd, is surplus in both cattle and beef. Some of this surplus moves in the form of feeder cattle, mostly to Ontario feedlots. About 500,000 head of feeder cattle per year, or about 20 to 25 percent of the western beef calf crop is moved. As noted in Table 13 about 65 percent of fed cattle marketings are slaughtered in western Canada. Between one third and one half of this beef moves to eastern Canada, mostly to Montreal markets. This suggests that producer fed cattle prices west and east differ by approximately the freight rates for meat (Table 14).

Assessment of the possible impact of a change in the method of payment on the eastern cattle industry is made difficult by industry complexities in production and trade characteristics for both cattle and beef. On the production side, the beef industry is a two stage industry, with both cow-calf and cattle feeding segments, which are subject to biological constraints with respect to adjustments. On the trade side, interprovincial trade in both feeder cattle and beef requires consideration of and opportunities for western cattle and/or beef to move east, or to closer United States markets.

The initial impact of lower grain prices would be to improve feedlot returns in western Canada, hence improving the competitive position of the western cattle feeder. This improved competition would have the effect of bidding up the value of feeder cattle. The impact on the eastern beef and cattle industry would be two fold; a negative effect on feedlot returns, and a positive effect on cow-calf feeder production.

Concerning the potential expansion in western Canadian cattle production arising from a change in the method of payment, it should be noted that expansion in domestic beef production requires expansion in the cow-calf segment of the industry. This requires a pass through of feedlot benefits to cow-calf producers and at least four to five years before increased beef production is realized. These characteristics of the cattle industry make it highly uncertain as to how beef producers would respond to a reduction in grain prices.

c. Poultry

Chicken, turkey and egg production are subject to national supply management and cost-of-production pricing. The potential impacts of a reduction in feed grain prices in the prairies, arising from a method of payment change, relate to both a reduction in production costs on the prairies but not in other provinces, and to a possible redistribution of provincial shares of the national quota.

There would be modest benefits to prairie poultry producers arising from a change in payment policy. The potential effect on producers in other provinces is a possible concern. However, with respect to the pricing of chicken, turkey, and eggs only the latter is subject to national cost of production based pricing. Under current provincial pricing policies for chicken and turkey, a lowering of production costs on the prairies would have little or no effect on prices in other provinces.

A study completed for the Committee by Hollander (1984), estimates that under the current pay the railways policy the reduction in cost-of-production based egg prices in non prairie provinces would amount to .45 cents per dozen in 1995-96 (in 1984 dollars). This occurs because the producer share of grain transportation costs increase which in turn lowers feed costs in western Canada. A change to compensatory freight rates would bring about a reduction of .69 cents per dozen. Hence given national pricing policies for eggs, although net returns to egg producers on the prairies would be enhanced, a change in payment policy would result in only a minor reduction in egg prices to provinces outside the prairie region.

Changes in interprovincial distribution of production can be influenced by changes in relative production costs. However, there is a great deal of uncertainty as to the importance of comparative advantage in the allocation of new quota. In the egg and turkey industries there exists no allocation mechanism endorsed by all parties concerned. In the chicken industry it is difficult to assess precisely how allocation has been carried out. Hence, it is difficult to dispute Hollander's conclusions that "in view of the fact that any quota to be allocated as a function of cost differences amounts to a very small fraction of total quota in those industries one can conclude that the impact will be small irrespective of the allocation mechanism that is devised".

5. ADDITIONAL ISSUES

Throughout the deliberations of the Committee, additional areas of concern not directly related to the agriculture and grain handling and transportation system impacts were raised. They included:

a) the capitalization of the benefit payments into land values,

b) the impact on federal and provincial cattle and hog stabilization programs, and

c) the impact on international trade relations.

These are considered below.

a. The Capitalization of Benefit Payments

If the Crow Benefit is paid to producers it becomes part of the income received and expected by producers. As such it acquires a value associated with the land from which income is derived, regardless of whether land is owned or rented. In other words, capitalization of the Crow Benefit into farm land values is inevitable. The essential question is not whether this occurs but, if payments are made to producers, whether it would result in additional capitalization and to what extent it would vary from capitalization of the Crow Benefit under the current pay the railways policy.

Although precise measurement is questionable, there is no doubt that the historic Crow Benefit has had a positive effect on prairie farm land prices. The existence of less than compensatory grain transport rates has directly influenced farm gate grain prices and net farm income. Enhanced net farm income flows became incorporated into producer expectations and hence land values. The major impact of a change in policy would be on land producing or capable of producing grain, whether shipped through the rail system or not.

It is probable that the current impact of the Crow Benefit on prairie farm land prices is appreciable given the fact that the current Crow Benefit of about $21.00 per tonne is fully captured in producer incomes. Various studies have estimated the magnitude of the effect of the Crow Benefit on land values in past years when the extent of the benefit was less than that reached in the base year 1981/82. One detailed study suggested that, in 1979, the Crow Benefit accounted for about 21 percent for the prairies as a whole and 12.7, 17.0,and 28.0 percent of land values in Manitoba, Saskatchewan, and Alberta respectively, Fields (1980). For further observations of the impact on farm land prices see Lerohl et al (1984). Given the relatively fixed nature of the Crow Benefit and the fact that in recent years other influences have had a deflationary impact on land values, it is probable that these proportions would be as high, if not higher, at the present time.

A change in the method of payment could impact on land values in two ways. Both could result in a reduction in Crow Benefit capitalization. The first is if there is an element of dilution. If grain producers are not fully compensated for the increase in freight rates, reduced farm income flows suggest lower capitalization. However, this precludes the possibility that dilution losses will be more than compensated for by other benefits such as economies in grain handling and transportation. Second, the benefit is no longer hidden in market returns but fully visible as a compensatory payment. As such it may be discounted in producer expectations. For these reasons the objections to the pay the producer option on the basis of land capitalization arguments would appear to have little or no validity.

b. The Impact on Provincial and Federal Red Meat Stabilization Programs

Provincial stabilization programs for hogs and cattle in Manitoba and Saskatchewan are cost-of-production based. Without going into specific program detail it can be accepted that lower feed costs in the prairie provinces would lower production costs and hence reduce program pay-out. Another possible impact is that lower feed costs would ease the pressure on provincial governments to provide offsetting contributions to the livestock sector if benefit payments continue to be paid to the railways.

At the present time it appears that provincial programs for cattle and hogs may be superceded, for participating provinces, by a federal tripartite red meats stabilization plan. This proposed tripartite red meats plan is to be funded equally by producers, provinces, and the federal government. The support prices, established quarterly, would be equal to a national average of cash costs in the current quarter plus an agreed percentage of the average margin, market price less cash costs, in the same quarter of the preceding five years. As of March 1985 the tentative agreed percentage is 95 percent of the average margin for hogs and 50 percent for slaughter cattle.

Because the quarterly payment would be the support price less the average market price per quarter, two potential impacts from a change in method of payment emerge. First, the fact that the support price relates to national cash costs of production raises the possibility that lower cash costs in the prairie provinces will reduce the likelihood of a payment from the program. This possibility would be of specific concern to provinces outside the prairie region. Secondly, because a change in method of payment may generate increased supplies of hogs and cattle in western Canada with price depressing effects for all of Canada, there arises the possibility of increased program pay-out.

The frequency and amount of a program pay-out for either hogs or cattle would depend on the market price impact of changing the method of payment, tending to counter the feed price impact. Based on cash cost changes alone it could be concluded that the method of payment impact would be relatively small, particularly given the five year averaging process. Nevertheless, this could be to the disadvantage of producers in participating provinces outside the prairie region.

c. Impact on International Trade Relations

The Crow Benefit is a transfer payment from the federal government to prairie agriculture. Regardless of how it is paid it is reasonable that it has a relatively high profile with trading partners. Two questions have been raised. First, and most importantly, there is the question of whether the application of the payment, to either the railways or to producers, could be judged as having a non-market related impact on normal competitive relationships. Of particular concern is whether it would contravene GATT agreements with subsequent sanctioning of countervailing measures. Second, would the payment, or the manner in which it is made, reinforce or aggravate trade problems rooted in other causes.

With respect to the first question it is already apparent that the current pay the railways policy has created trade problems. The connotation of a direct subsidy on rail shipments of processed grain and oilseed products has been challenged. Payment of the benefit to producers would eliminate this concern.

However, it is not clear how a payment to producers would be viewed. In spite of arguments to the contrary it could probably be validly argued that payment to producers would not interfere with normal competitive market forces. In fact, it removes a market price distortion that developed historically as producers paid a progressively smaller proportion of grain transport costs. It would partially restore a competitive relationship which would prevail in the absence of the payment. This assumes that the payment would be made on a resource neutral basis.

Nevertheless, there is the argument that any policy change which would provide an incentive for increased hog and beef production in western Canada would compound trade problems. These problems are now surfacing with respect to pork and hog exports to the United States. The current high level of pork exports to the United States of over 300 million lbs in 1984 of which about 85 percent originated from eastern Canada and the sharp increase in live hog exports of over one million head in 1984, about equally shared between western and eastern Canada, has directed attention to federal and provincial price stabilization programs. The volume of exports has a considerable bearing on the development of potential trade difficulties. There is a valid question whether these problems, rooted in other sources, should be a factor in rejecting policies that could be of advantage to Canada, particularly since it is questionable if such policies could be construed as violating trade agreements.

Trade restraints are a fact of life and are imposed by importing nations from time to time for a variety of reasons. The Committee has been advised that any compensation payment, whether paid to the railways or to the producers, may attract restraining action by importing countries. By applying to domestic as well as export transactions, the pay the producer option would make it more difficult for other countries to take offsetting actions.

CHAPTER IV

GRAIN HANDLING AND TRANSPORTATION

1. EFFICIENCY CONSIDERATIONS IN THE WGTA

The guidelines given by the Minister of Transport in elaboration of clause 62(2) in the Western Grain Transportation Act which established the Committee of Inquiry, require it to "assess the impacts of alternative method of payment options on the efficiency of the western grain transportation and handling system". Elaborating upon this general and comprehensive instruction, the guidelines specify that consideration shall be given to (1) the effects that alternative methods of payment will have on any efficiency gains in the system, (2) the anticipated rate of change in the system under alternative methods of payment, and (3) the cost implications upon western grain transportation of alternative methods of payment.

The ministerial instructions are broader than the focus of the Act respecting responsibility for the efficiency of the grain handling and transportation system. In the Act the ongoing responsibility for improving the capacity and efficiency of the system is put upon the Senior Grain Transportation Committee (clause 12) and the Grain Transportation Agency Administrator (clause 17(2)). Periodic assessment of railway efficiency by proper assessment of costs is given to the Canadian Transport Commission (clause 38(2) (a)) and efficiency is to be enforced by the possible holdback of revenues from an offending railway by the Minister (clause 55(2)).

One further and important provision which serves to sum up the objectives of the Act respecting efficiency and adequacy of the system is found in Clause 38(5) where the Canadian Transport Commission, in its reviews of railway costs, is charged to ensure that overall revenues are adequate for long-term grain transportation requirements.

None of these responsibilities relate directly, or by inference, to the method of payment. The melding of the Minister's guidelines and the responsibilities for efficiency and adequacy in the Act require an interpretation of the meaning of "efficiency" in the Act.

What emerges from the efficiency clauses of the Act is an objective to ensure adequate capacity and an efficient railway system to serve the long term needs of grain transportation from the producer to export positions. The Act is clear that this is to be achieved over time, by two means: (1) by money, and (2) by direct contribution of physical plant and rolling stock. The money is to be contributed both by the federal government, in specified amounts under certain circumstances, and byrail shippers of statutory grains to export positions. The direct contribution is already provided by the branch line rehabilitation program, and by rolling stock acquisition. Thus the Act's clear purpose to shift the rail costs of transporting statutory grains increasingly from the railways and the government to the producers is to be made easier by a sharing between producers and the government of the burden according to the terms and conditions defined and stipulated.

2. EFFICIENCY AND THE STRUCTURE OF STATUTORY RATES

The WGTA, as a reflection of government policy, has within it concerns for the social and economic impact upon agriculture in general, and the grain sector in particular, as well as for railway revenue. The Act gives evidence of the desire to ensure an adequate and efficient rail transport system, and a decision to share the costs with producers.

The definitions and stipulations for reallocating costs are all cast within a framework of rates constructed around railway costs attributable to grain. The "efficiency" and "adequacy" of the grain transportation system set out as objectives of the Act are technical and operational efficiency and adequacy paid for by a scale of rates designed to allocate total costs. There is nothing in the rate scale to encourage efficient utilization of labour and capital by railway operators whose total costs are always covered or by the user whose rates are fixed regardless of how efficiently he uses the system. Admitting that individual railway companies have normal profit incentives to carry grains at lowest cost in order to improve their net revenue positions, there is nothing in the way rates are set to encourage shippers to change.

This pattern of course, is not accidental. It is the perpetuation of a rail rate system which has served prairie grain production well, an expression of the same "pooling" principle that is part of much of the grain elevation and handling system. Its preservation requires system costs to be averaged, and covered by some type of uniform rates scale. The rate scale chosen was the former "Crow" scale which was and still is generally distance and weight related. This pattern of rates has become so ingrained into the decision making process of prairie agriculture that it is now thought of as a cost-based system of rates. It is, but only in that it allocates total system costs. It is not related to the costs of any specific shipment or location, and therefore contains no incentives to economize on transportation resources.

Persistent and cumulative inflation resulted in the original statutory rate scale failing to cover rail system costs. How well it covered system rail costs before the onset of higher inflation rates has never been determined. The WGTA is an attempt to upgrade the historic rate structure, tie it to future system cost increases caused either by price or volume, and share future cost increases between the federal government and shippers.

Seen in historic context, it is apparent that the present rate structure is not efficiency oriented. It is even less so than its predecessor, where rail system cost savings effected could accrue to the railways in perpetuity. Under the present Act any rail cost saving is incorporated into the cost base developed at the next costing review (every four years), and passed back to the shipper through the rate structure.

One is forced to conclude that, whatever merit there is in the present statutory rate scheme, it is not designed to encourage economic efficiency in the use of resources in transport. Indeed, one can conclude that the obligations to ensure "efficiency" and "adequacy" placed upon officials, commissions and committees found amongst the clauses of the Act, are likely to encourage the oversupply of rail transport resources in pursuit of smoothly flowing movement, to achieve operational efficiency and adequacy. There is nothing in the Act which gives encouragement or opportunity for "economizing" rail transport, other than the cumbersome provision for discounted rates under very circumscribed and difficult conditions.

3. SHARED COSTS OF RAIL GRAIN TRANSPORT: PAST AND PRESENT

The WGTA does not represent the first or the only step which has been taken to overcome inadequate rail revenues derived from the old statutory (Crow) rates. Cognizant that the highest cost segments of the grain gathering rail system were deteriorating, the federal government began a series of branch line subsidies in the late sixties. Subsequently a program of boxcar rehabilitation and hopper car purchases was begun, the latter involving participation by federal and provincial governments as well as shippers (through the Canadian Wheat Board). By 1977 an extensive program of branch line rehabilitation commenced. All of these infusions of capital shored up the failure of statutory rates to yield adequate revenues.

The producer is the beneficiary of these earlier measures to relieve the railways of inadequate revenues. He receives all the benefits of the rehabilitated and upgraded branch lines, and hopper cars, without either being built into the rate base. But, as these capital investments are dissipated through use, and over time, the total cost of replacement will again be built into the rate structure paid by export grain producers.

4. ECONOMIC EFFICIENCY GAINS IN THE GRAIN HANDLING AND TRANSPORT SYSTEM

During the years statutory grain revenues became seriously deficient, and during the time that governments were moving to lessen the impact through subsidies and capital investment in railways, certain events occurred which resulted in true economic efficiency. Most of these were specific to grain movement but some were rail system phenomena. They are set out and discussed here to draw the distinction between steps which are intended to increase the grain handling capacity of the railway system, as has been outlined, and those steps which truly economize the use of plant and equipment.

a. Railway Efficiency Gains

For the period since 1967 railways have been able to apply for branch line abandonment, and were forced to do so to secure subsidies for grain related branch lines. In every case where lines were approved for abandonment, the Canadian Transport Commission determined that there was an actual operating loss on the branch line. Even though some extra costs of longer road hauls to elevators would subsequently be incurred. Such cases improved the efficiency of the whole system.

While branch line abandonments have the most precise bearing on the efficiency of the grain rail movement, the investments made over the larger railway system perhaps contribute more to the efficiency of hauling grain, as they do with other traffic. Heavier steel, reduced grades and curves and longer passing tracks enable more powerful locomotives to haul longer trains with heavier cars. Modern signalling and information systems enable train control to be precise, and the inventory of power and rolling stock to be efficiently deployed. Cumulatively these, and other changes have lessened railway cost increases.

b. Efficiency Gains in Elevation and Handling

Another true step in economic efficiency has been the impressive closure of smaller elevators which the companies determined were not profitable. The number of primary elevators declined from a post-war peak of 5366 in 1956 to about 2800 by 1983, and delivery points from 2083 to 1181 in the same period (Table 1). With this trend, new and rebuilt elevators succeeded in increasing average turnover or throughput from about 2.35 in the 1976-77 crop year to 4.22 in the 1982-83 crop year, Waithe (1984).

Considering that there are still many elevators which have had only marginal capital improvements, the new, "high throughput" units have performed impressively. There are still considerable gains to be made in the handling and rail transport segments of the movement of grain as elevator companies pursue profitability through rationalization and recapitalization, increasing the turnover capability of their plant. The extent to which new investment locates on the more densely used rail lines, the rail economies of operation will be enhanced and will show up in the rate base. Anything which tends to prevent the rationalization of collection points, such as uncertainty over the life of branch lines, or which inhibits the increase of turnover, such as individual producer cars and lightly loaded cars, will keep rail costs higher than otherwise and will increase the rate base. Inefficiencies in the system are paid for by all shippers and taxpayers under the WGTA, even as efficiencies from whatever source serve to reduce total system rail costs.

c. Efficiency Gains in Primary Road Haul of Grains

The primary road haul segment of grain transport has been from farm to elevator. The 23 km average haul in 1982/83, IBI Group (1985), reflects to a limited extent the closure of branch lines, and to a greater degree the closure of elevators. Further closures to bring the total to 920 delivery points is estimated to add 3.5 km to the average haul, an average 15 percent increase. If consolidation proceeds to reduce the system to 800 delivery points, this will add an estimated average 5 km to the 1982/83 total. If the consolidation trend reduces delivery points to 650, the estimated average length of road haul will be 31.7 km, an average increase of 8.5 km over 1982/83.

There will be some economies in road haul when longer distances and higher throughput elevators encourage the use of larger trucks. Using 5 axle semi-trailer trucks as a model, each farm's output can be carried making about one third of the trips of a 2 axle farm truck carrying 7 tonnes. There is evidence that larger trucks, with the load carried by more wheels, may reduce total road wear and damage[1].

The trend to longer grain road hauls is well established. It has been set in motion by elevator consolidation and by rail line abandonment. There is no question that it has resulted in increased road costs, costs that will continue to grow in total as consolidation continues. These may be ameliorated somewhat by the use of larger trucks and some saving on road maintenance may even be possible. Whether the total net cost increase of longer road haul will be offset by savings in elevation and rail system economies will be difficult to determine. Whatever the efficiencies which may result, realism forces the conclusion that elevator consolidation trends already in force will increase the length of road haul to producers in relation to their local situation, regardless of the method of payment of the government contribution to offset rail costs.

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[1] For example, the IBI study completed for Transport Canada, using industry accepted standards, calculates the road wear to move 100 tonnes of grain by tractor & semi-trailer to be only 40 percent of the wear induced by a farm truck with a 7 tonne load. The calculation is for a road technically designated as "flexible pavement, structural number = 2 and terminable serviceability index = 2.0". This equivalence may not hold for gravelled and graded country roads.

5. THE BURDEN OF RAIL TRANSPORT COST INCREASES

a. Introduction

The analysis which follows treats three cost components of grain handling and transport in terms of system averages. This is consistent with the method of presentation of specifics in the WGTA. The three components are truck haul to elevator, elevation and handling, and rail costs.

Most of the increased burden to producers in grain handling and transport is directly and consciously caused by the WGTA. But some part of the greater burden may not be caused by the Act, specifically the share of the burden caused by an inflationary cost and price squeeze. Significantly, the WGTA recognizes, and attempts to reduce the added burden. The analysis which follows demonstrates the effect of that concern on easing the increase in averaged costs.

Finally, note is taken of the differential impact of increased grain handling and transport costs. Not every shipper of statutory grains will bear equally or equitably the increased costs. Most of the difference is due, not to inflation, but to a structure of rates first imposed by the Act of Parliament which created the old statutory rates, and continued under the present Act.

b. The Impact of the WGTA on Producer Costs

Under the Act producers pay cost increases arising from two sources. First, they arise from the higher scale of statutory rates which are set to cover designated railway costs. Second, producer costs will increase due to the limits to federal support set by the 31.5 million tonne cap. The cap means that when producers collectively ship by rail more than 31.5 million tonnes of all the statutory grains and products, all shippers pay more for each and every tonne shipped than they would at volumes below 31.5 million tonnes.

c. Producer Cost Burdens not Attributable to the WGTA

In order properly to assess all the provisions of the Act in its effect upon grain handling and transportation, note must be made of the influence of general inflation, and of the possible trend of export grain prices.

The impact on farm costs of general inflation is reflected in the Act, which permits rail cost increases to be built into the rail rates. Each year the rate base multiple will be adjusted, up or down, by past inflationary experience, as it will by future volume estimates. The Act, cognizant of the possible squeeze on farm incomes from inflation driven transport and other costs, limits the rail rate increase to shippers to the first 3 percentage points per year up to 1985-86 and to the first 6 percentage points annually thereafter.

An additional protective feature is the safety net, which provides for the federal treasury to ensure that average rates paid by shippers do not exceed a stipulated percentage of the composite export price of statutory grains.[1]

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[1] The explicit mechanics of the shipper share limitation, and the structuring of annual rates are set out in the Act and fully interpreted in many places. The details are not germane to the issue of producer burden discussed here.

d. Projected Grain Handling and Transport Costs Under Inflation[1]

i. The three components of costs considered in the handling and transport of statutory grains are: truck haul to delivery point, elevation and handling, and rail cost to export position. The present analysis of these average costs, which is summarized in Tables 16 to 18, indicates direction and approximate magnitude of change under conditions of 3 percent and 5 percent inflation. These rates are compounded from the chosen base year of 1981-82 through to 1995-96 using two volumes of statutory grains[2] shipped by rail: 31.5 million tonnes, and 40.5 million tonnes.

The same presumption of increase is also applied to the selling price of statutory grains in-store at export positions, in order to test the shipper share limitations of the Act, and their effect on net farm income[3].

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[1] This analysis is based upon studies undertaken at the request of the Committee by the Freight Studies Directorate of the Research Branch of the Canadian Transport Commission. Because the model used is based on a restricted sample of branch lines, the projected freight charge in 1995-96 is not identical to that determined using the Agriculture Canada model assumptions (see Table 2). In addition, the model being branch line oriented does not incorporate terminal handling charges into elevation. To this extent the overall grain handling and transportation costs are understated. However, the results are sufficiently representative for illustration purposes.

[2] The six major grains qualifying for statutory rail rates prior to the passage of the WGTA are used throughout. They are used in the Act as a basis for a number of calculations.

[3] The term "net farm income" in this section of the Report means net income from the selling price of grain in-store at export position less the three components of grain transport and handling.

This impact analysis is applied to three payment options, presented as alternatives. Alternative One is the present arrangement of paying the railways, Alternative Two pays the producers who ship by rail to export positions, and Alternative Three is structured to show the effects upon rail shippers of statutory grains when the Crow Benefit is paid on the basis of all current marketings whether moved by rail or not.

ii. Table 15 presents the actual in-store port selling prices for years 1981-82 to 1983-84, and the calculated annual averaged weighted price of six statutory grains for the same period. This composite price becomes the basis for price projections to 1995-96. In Tables 16 to 18, the price projections are based on annual increases of 3 percent and 5 percent from the actual composite price experience of 1983-84, the most recent year available. The calculated price at 3 percent annual increase rises to $275 per tonne by 1995-96, and at 5 percent to $347 per tonne.

In Table 16, Alternative One (Pay the Railways) shows grain handling and transport costs rising from the 1981-82 base of $15 per tonne, to $43 at 31.5 million tonnes, and $47 at 40.5 million tonnes. In spite of these cost increases, net farm gate price rises to between $228 and $232 from $164 due to the assumptions of increased grain prices. At 3 percent inflation, the three grain transport and handling cost components together rise from 9.1 percent of the 1981-82 net farm price to 20.6 percent at shipments of either 31.5 million tonnes or 40.5 million tonnes.

Alternative Two, payment made only to producers who ship statutory grains by rail, demonstrates that, after accounting for the change in destination of the $658.6 million benefit from railways to producers, the net farm price is unaffected by the change in this method of payment at either 31.5 or 40.5 million tonnes shipped. The same cost factors are at work, and elevation and trucking costs are substantially unchanged[1] between the two production levels. Total transport and handling costs rise to 27.5 percent of net farm price before compensation.

Alternative Three, in Table 16, in which the payment of the Crow Benefit is made on the basis of all marketings of statutory grains, introduces a new dimension of dilution. Here, because payment is distributed over all production currently sold, less is paid on each tonne than when the whole benefit was paid to tonnes moved by rail. Consistent with assumptions used in the Report, this dilution to grain shippers is calculated to be 15 percent. The added dilution factor caused by paying on the basis of current marketings reduces realized net farm price by an average of $3.00 per tonne below Alternative Two.

Alternative Three demonstrates that the provisions of the Act which permit rail costs to be covered, result in slightly lower average farm prices for statutory grain when the $658.6 million benefit is paid on the basis of marketings, due to the introduction of a new dilution factor not found in Alternative Two.

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[1] Elevation costs fall slightly between the two production levels because the CTC model assumes certain costs are insensitive to volume and therefore total costs fall with increased throughput.

The lower part of Table 16 illustrates the proportional changes of the rail charge to net farm price, with 3 percent inflation. The percentages change from a low of between 11.2 and 13.6 percent under pay the railways to a high of between 20.2 and 20.9 percent under a payment on marketings. But a simple calculation taking the benefit out of the rail charge in order to test the true burden, shows the impact to be much less. At 31.5 million tonnes shipped the relationship between the real burden of rail charges and the composite price of grains in-store ranges from about 9.5 percent in Alternatives One and Two, to 10.5 percent in Alternative Three.

When the larger volume of 40.5 million tonnes is shipped the range of the percentage ratios is 11.7 under Alternative One, 11.3 in Alternative Two, and 12.4 in Alternative Three. The burden increases slightly in the latter option due to a dilution of the benefit.

iii. There is in the Act a provision for limiting the shipper share of higher costs to the producer called the safety net. It limits (by 1988) the producers' share of the rail freight rate to a maximum of 10 percent of the average weighted in-store price. As the Act now stands, the safety net effectively supplements the statutory grains payment of $658.6 million and inflation protection when they are inadequate to keep the producers' share of the rail freight rate below the safety net maximum.

To illustrate this prospect, Tables 17 and 18 have been prepared assuming a not unrealistic cumulative annual increase of 5 percent in the transport and handling costs to 1995-96. In Table 17 the safety net has not been activated in order to show the full effect of higher inflation rates in the net farm price. In Table 18, the safety net has been invoked for all alternatives.

In Table 18, using the same forecast for increase of grain prices, the safety net is in effect at 31.5 million tonnes by 1995-96. Because the in-store price of grain has risen to $347 per tonne, the net rail charge to shippers is set at one tenth of that, say $35 per tonne.

All three alternatives now come under the protection of the safety net. The maximum burden of rail costs is limited to a rail charge of $35 per tonne regardless of the rail costs. As was shown in Table 17, applying the 5 percent inflation appropriately, increases rail costs to about $62 per tonne at both levels of shipments.

Alternative one (pay the railways) presents no conceptual difficulties in interpreting the Act. The federal government simply pays the difference between the safety net maximum charge and the full rail cost, at both levels of shipments. The volume cap effectively disappears, and the statutory payment of $658.6 million becomes part of the total payment.

It is in Alternative Two and Three that the "safety net" requires clarification. Under any pay the producer plan some adjustment in the calculation of the producer's rail charge is required. Table 18 is set up to illustrate the need.

The Table assumes that the payment of $658.6 million will be paid to all producers of statutory grains based on current sales, not current rail shipments. It also assumes that the payment will be distributed quite apart from the behavior of rail costs. Thus the Table as prepared treats the statutory payment and the safety net as two distinct undertakings of government; one to meet the benefits that grain growers enjoyed under the former low Crow Rate, and one to offset higher rail charges. Both objectives are found in the present Act.

Reference to Table 18 will show that under the suppositions stated, there is little difference to net farm price between the two pay the producer options for those who ship by rail. The differences are caused solely by the dilution factor between paying all the benefit to the exporters, and paying the benefit on all marketings, local, regional, and export.

There is, however, a great difference to the government between a pay the railways and a pay the producer option if the 10 percent maximum rail charge is applied to the average price for statutory grains. Under higher rates of inflation, and under a pay the producer option rail costs could reach 10 percent of the price within the next decade, unless the Act was amended. For example, it could clearly state that it is 10 percent of the rail shipper's net rail burden which is protected by the safety net. Thus the rail rate less the statutory contribution is the true burden. This change would substantially reduce government obligations under the safety net, while keeping the level of protection the same as intended in the present Act.

iv. Figure 1 is a visual representation of the changes to the transportation and handling components of total farm costs for selected years to 1995-96, assuming 3 percent annual inflation. It demonstrates graphically the absolute increases in the rail portion of these costs, and the relative growth of rail costs compared to the estimates of elevation and trucking increases. From the base year 1981-82, shipper net rail costs grow from 12 percent of total grain transport and handling costs to about 41 percent by 1995-96 as producers assume more of the burden. Even more significantly, in absolute terms, the current dollar costs rise from an average of $5 per tonne to $26. The other cost components rise much more moderately, according to the formulae built into the basic Canadian Transport Commission model from which this analysis is derived.

6. THE DIFFERENTIAL IMPACT OF RAIL COST INCREASES

The foregoing analysis has been a simplified projection based upon two rates of inflation. The analysis has been applied to a static system. No attempt has been made to accommodate change in number of elevation points, or miles of railway line, or any other of the real economies occurring in the system.

Consistent with other analyses, and with the mechanism of the Act, this analysis illustrates changes in system average costs and rates and prices. The use of averages is a convenient and useful device, but it obscures the differential impacts of changes across a very large area. In the present instance, the differential impacts are very great, and caused by two things. The first is the common price, distance adjusted, received by all producers. The second is the structure of statutory rates. Being designed to allocate total railway costs on a uniform weight and distance scale, it is apparent that those who are at the upper end of that scale will pay a larger proportion of the system rail costs and spend a larger percentage of their grain selling price to buy transportation. Realizing that the Act permits rail costs to be fully paid, and the shipper share to increase substantially, the weight of the share of costs allocated to the more distant shipper increases more sharply than the allocation of burden to shorter distance shippers.

Figure 2 illustrates the effect. The base line represents the approximate level of the former Crow Rate scale. When the total rail costs rise, the scale will be uniformly increased by a multiple sufficient to yield revenues equal to rail costs. If this requires a multiple of 5, the intermediate line illustrates the scale. Each shipper has his rate quintupled. The shipper who moves grain by rail approximately 700 miles will be assigned a rate increase of about $15 per tonne, ignoring any benefit offsets.

In contrast, shippers sending grain 1450 miles will have the assigned rate raised from near $8 to about $34 per tonne, a dollar difference of about $26 per tonne. As distance increases, the dollar spread between old and new scales increases. The effect is a skewing of burden against the longer distance shipper.

This skewing effect is moderated by the Crow Benefit provided in the Act. The share of the Benefit payment to each recipient is based on his applicable rail rate. But it cannot, under the structure of rates set out in the Act, eliminate the disproportion of the additional burden of rail costs falling on the longer distance shipper.

The skewed impact of the statutory rate structure gives rise to some interesting anomalies. Shippers at the high end of the rate scale may be bearing more than 10 percent of average grain price before the averaging provision of the Act provides payment to all. A truly unbiased rate scale, since it is an administered price schedule, would see the Crow Benefit and the share limitations applied to give each shipper, regardless of distance, an equal dollar increase per tonne above the old (Crow) statutory rate he paid. Unless the Crow Benefit, and other shipper share limitation provisions compensate to make the net additional dollar cost per tonne much more equal, the economic effect will be to bring freight cost pressure upon long distance grain producers to (a) take much less at the farm gate than short distance shippers, or (b) make production mix adjustments sooner than under a more equitably administered rail rate scale.

This Committee is constrained to give expression to this concern. In the ministeral guidelines, the Committee is charged to take into account, in considering alternative methods of payment,

> "The impact on freight rates and on net out-of-pocket costs to statutory grain shippers"

The Committee believes that the Minister had concern for all statutory grain shippers, and it finds that the impact of all methods of payment is disproportionate. An inequity which was inconsequential under the former Crow Rate becomes of critical significance under the new schedule of administered rates regardless of the method of payment. It would not be difficult to construct a more equitable means of covering allocated system rail costs than the simple multiplication of a rate scale created in the infancy of rail rate making.

7. CONCLUSIONS

The analysis undertaken to examine western Canadian grain handling and transportation aspects of this Committee's mandate required an interpretation of the meaning of efficiency as it is found in the *Western Grain Transportation Act*, in order properly to assess the impact of the Act upon the grain transportation and handling system. Close examination of the relevant clauses in the Act shows that the meaning of efficiency is not the same as stated as an objective for national transportation policy set out in the *National Transportation Act*. Nothing in the *WGTA* leads to a western grain rail system "making the best use of all available modes at the lowest cost". Since statutory grain rates are administered prices the system does not allow rail cost and price to interact in a market.

Quantitative analysis in this chapter of the Report demonstrates that the rail portion of grain handling and transport costs will increase the most. Averaged elevation and trucking costs in the static system of the model, will grow much more moderately under the assumed conditions of inflation.

The analysis, under assumptions of 3 percent and 5 percent annual inflation (both low enough not to activate the inflation protection provisions of the Act), shows that the safety net could become operative for some volumes at the inflation rates as low as 3 percent and would be operative within a decade at cost inflation rates of 5 percent. Any decline in export prices brings the safety net into even earlier operation.

Since the model used is designed to show the impact of alternative methods of payment on average farm net incomes, the extra cost of the safety net to the government is not shown. The Committee accepts the interpretation that the net applies to every tonne shipped when it is in effect. Under the conditions of the model the cost to the government by 1995-96 will be of the order of $27 per tonne based on annual cost increases of 5 percent. At a volume of 40.5 million tonnes the safety net will cost the government a sum in excess of one billion dollars over and above the statutory benefit of $658.6 million.

The volume cap provision is irrelevant if the statutory $658.6 million is paid to producers on the basis of current marketings. The model assigns all rail charge increases to the producer directly, and uses a consistent total benefit payment as an offset, allowing properly for dilution.

Some advocates of a pay the producer option said or inferred that it would offer opportunities for alternative transport. The analysis in this chapter does not address this contention, being based on a static system of rail routes and elevator points. But the analysis does not refute the contention. As elevation points disappear, and if non export marketing opportunities appear, there will be more truck hauls of statutory grains to buyers within western Canada.

There were also assertions that a pay the producer option would stimulate producer interest in more efficient rail service. The quantitative analysis in this chapter does not directly address this assertion. Nevertheless, there is no firm basis for this assertion under the present rate regime. Whether and how the two railways would or could effectively compete with each other for a larger share of grain is not clear, prohibited as they are from effectively offering any rate incentives.

The method of payment option recommended by this Committee is firmly based on the beneficial effects to agriculture. The analysis of transport and handling costs in this chapter demonstrates that there is no adverse transport related obstacles or effects from the decision to pay the statutory benefit on the basis of current marketings.

The transport and handling analysis demonstrates three things of significance. First, that a change in the method of payment requires clarification and redefinition of the provisions of the safety net to keep its operation consistent with the intention of the present Act. Second, since rising rail transport costs are not significantly changed by any method of payment option, it will take more than a change in the method of payment to improve efficiency. Third, none of the methods of payment will ease the inequity put upon the more distant shipper of statutory grain by the present structure of rates.

CHAPTER V

BASIS OF PAYMENT: PAY THE PRODUCER PROPOSALS

1. INTRODUCTION

The foregoing analysis of the agricultural impact of the two major alternatives, pay the railways or pay the producers, strongly suggests that, in the best interests of western agriculture, attempts be made to develop an acceptable pay the producer alternative. In the view of the Committee, the most important consideration is the potential for a pay the producer alternative to exploit unrealized efficiency gains in western agriculture. These efficiency gains include the manner in which producers allocate farm level resources as well as opportunities for change in the grain handling and transportation complex. An acceptable pay the producer alternative would best meet the overall Committee mandate to "examine all matters that, in its opinion, pertain to the method of payment in respect of grain transportation that would be most conducive to agricultural development in Canada".

Admittedly, payment of the Crow Benefit to producers presents equity and implementation problems which must be considered. If the Committee was to recommend in favour of payments to producers it was necessary to select a system which would be operationally feasible while, at the same time, balancing the advantages and disadvantages as related to the criteria of resource neutrality, equity, and efficiency.

Payment of the Crow Benefit to producers involves two major questions. These are, first, how and to whom producer entitlements would be established and second, once established, how payments would be made. Throughout the long period of Crow debate, various proposals have focused on these considerations, particularly the first. Since the Gilson inquiry of 1982, foremost in the debate has been the establishment of producer entitlements based wholly or in part on acreage productivity adjusted for distance related rail rates. Other proposals with producer entitlements based solely on marketings or shipments have received little or no attention. In particular current marketings was looked upon as similar to paying the railways. Once entitlements have been established, there have been suggestions that payments be made annually (directly or indirectly through a freight credit mechanism) or that a once and for all Government payment be made, annuity or Crow Bond, Economic Council of Canada (1984). Other issues addressed have included the eligibility of new land coming into production, the need for further government funding, division of the benefit fund among provinces, maximum and minimum payments to producers, and payments geared specifically to on-farm development objectives, Lerohl (1984).

2. THE ALTERNATIVES

Historically Based

- Acreage: The Gilson Proposal
- Marketings or Shipments
- Hybrid Proposals: Acreage and Marketings Based
  - The Double "80" Proposal
  - The Freight Entitlement Proposal

Current Marketings

Entitlements established annually by off-farm marketings of statutory grains.

3. HISTORICALLY DETERMINED

All historically based entitlements would have common features. Most importantly, once established, apart from future government commitments, benefit payments to producers would remain unchanged regardless of future production and marketing practices. It follows that all plans are resource neutral. Grain transportation rates also will rise to, or closer to, compensatory levels offsetting in total or in part the grain and oilseed price distortions.

Methods for establishing individual producer entitlements on an historic basis vary in their application of who receives the Crow Benefit payment and most importantly, how effectively payments compensate for financial losses as transportation rates increase. The practicality of establishing and administering individual producer entitlements also varies. Therefore, equity and administrative feasibility criteria become the major considerations in evaluating alternative historically based entitlements.

a. Acreage Based Entitlements: The Gilson Proposal

The major characteristics of the Gilson proposal are:

Producer entitlements would be calculated according to land productivity ratings and distance related transportation rates. Payments on a land basis would reflect crop insurance yield ratings by soil type, historical cropping patterns, cultivated acreage in each quarter section, and transportation rates. Individual producer entitlements would require reconciliation of crop insurance, municipal tax assessment and Canadian Wheat Board data.

Producer payments could be made directly to farmers or indirectly credited to an account where transportation charges on grain delivered would be debited. Any balance remaining in the freight credit account at the end of the crop year would be claimed by the producer.

The program would be phased in over a six year period with additional government funding, an adjustment fund, to compensate grain shippers for benefit losses due to dilution. The Crow Benefit would be gradually phased in from 100 percent going to the railways to 19 percent going to the railways and 81 percent going to the producers.

i) Equity Perspectives

Arguments both for and against acreage based entitlements have been made on equity grounds. On one hand the proposal recognizes that, a rise in freight rates would be in part offset by compensation to all producers of statutory grain independent of rail shipments. Furthermore, to the extent that past income benefits have become capitalized into land values, compensation would be made on a comparable basis on all land capable of growing statutory crops. This latter consideration led to Gilson's conclusion that "relating the payment to cultivated acres, rather than acres of statutory crops, would be more equitable".

On the other hand, the proposal raises several equity considerations.

The dilution effect, or sharing of the Crow Benefit by grain shippers with other producers who have either not used the rail transport system or have not grown statutory crops, was recognized by Gilson. He said "it would be impractical to assume that so sweeping and significant a change in transportation policy could be instituted immediately, and in one step, without expecting some form of compensation or adjustment to be paid". Thus the proposal for an interim adjustment payment was made. On equity grounds as well as in the interests of grain sector acceptance, additional government funding would be a requirement of acreage based entitlement systems.

The uneven producer income impact across prairie regions and among farm enterprises, as noted in the previous section was a further equity consideration. Compared with the status quo, there are winners and losers. Equity to the latter group means losses, real or perceived to be real, that are not compensated for by payments.

A major concern is the sharing of the Crow Benefit, regardless of adjustment payments, by grain shippers with producers who have not used the rail system. The livestock sector would have higher incomes through lower feed grain prices in addition to payments from acreage based entitlements. This two part increase in income could be viewed as an excessive transfer of benefits from the grain to the livestock sector.

In addition the three prairie provinces are very different in their resource and production characteristics. This is also true within each province. In other words, the prairie region is far from a homogeneous production unit either between or within provinces.

An acreage based entitlement would tend to transfer income from regions or provinces with a relatively high grain marketings to grain production ratio to regions or provinces with a relatively low ratio. While this problem could possibly be partly solved on a provincial basis with a split of the Crow Benefit allocated to each province it would still persist on a regional basis. Furthermore, producers in particular regions may not have the adjustment possibilities to benefit from a resource neutral policy. An acreage based program could then result in uneven adjustment possibilities across prairie regions. The application of a constant Crow "multiple" to all freight rates puts additional adjustment pressures on areas furthest from export ports.

A further concern is the lack of recognition of management expertise as influencing farm productivity, regardless of soil classification determined yields. The system would not compensate above average management in proportion to losses incurred.

Eastern Canadian interests, particularly Quebec, have objected to acreage based payments on an equity basis. While there are differences of opinion whether and to what degree eastern interests would be affected, vigorous opposition from Quebec producer organizations to acreage based proposals has surfaced. Apart from the growth potential which the proposal would give the western livestock sector, the perception is also of subsidizing some crops which compete in the same markets as similar crops grown in eastern Canada, e.g. potatoes.

ii) Administrative Feasibility

All acreage based proposals involve a relatively complex procedure of establishing producer entitlements according to land productivity ratings and distance related transportation rates. It involves reconciliation of crop insurance, municipal tax assessment, and Canadian Wheat Board data. Research done for the Committee indicates that the procedure would require considerable time to assemble and process data, identify missing information, and develop procedures for special circumstances. An acreage based entitlement policy could not be put in place without considerable time lag, expense, and the possibility of inter-producer discrepancies arising from errors which would have to be resolved through an extensive appeal process. An assessment of the procedure for establishing acreage based entitlements is contained in Appendix 6.

iii) Other Considerations

Submissions to the Committee raised other subjective issues on acreage based entitlements. The connotation of a production rather than a transportation payment was perceived to be less politically viable and raised some interprovincial and international trade concerns. The administrative complexity of acreage based entitlements and the uncertainty of the consequences becomes a practical disadvantage in explaining how a producer shares the Crow Benefit. While there are differences of opinion on these issues, the lack of producer consensus and public understanding should not be dismissed.

b. Historical Marketings

Determining a producer's share of the Crow Benefit on the basis of historical marketings has the advantage of providing compensation in proportion to the past usage of the grain marketing system. The dilution of the Crow Benefit between grain shippers would be limited to the amount of recorded grain sales above shipments. Hence dilution would be considerably less than under an acreage based alternative. Furthermore, at the time of implementation all the benefits would be retained within the grain sector. Compensation would reflect an individual's past performance.Payment shares would be proportionate to the historical record of grain sales, recognizing past productivity. In addition, of all the pay the producer alternatives, it should be the most easily understood. This payment might also better retain the connotation as a grain transportation rather than a production subsidy.

Yet, producer entitlements based solely on historical marketings have received but superficial attention. For both equity and administrative reasons, this option has not been considered a practical alternative.

i) Equity

Available data on off-farm sales of grain is restricted to that recorded by the Western Grain Stabilization Administration (WGSA). This data does not include farm-to-farm sales, sales to unregistered outlets, and sales of a number of special crops. Hence, the record only covers 75 to 80 percent of prairie grain production.

While all grain producers would have a loss in income from higher grain freight rates, a pay the producer policy based upon historical marketings would not be all inclusive. Producers would not receive commensurate compensation according to past grain production. Producers who sold none or only part of their grain production through recorded channels during the base period would be missed entirely or partially. There would also be base period variations in production and marketings beyond producer control. On balance, the use of an historical marketings base would result in substantial inequities among prairie grain producers. These inequities would be readily recognized by producers.

ii) Administrative Feasibility

Data deficiencies, problems of continuity, and identification of producer records over an historical base period present administrative problems. In addition, to accommodate future changes in land tenure, perpetuity of payments would require translation of marketing entitlements to a land base. This presents start-up problems not entirely dissimilar to those noted for acreage based entitlements.

c. Hybrid Proposals: Acreage and Marketings

Hybrid proposals incorporating both an acreage and marketings determined producer entitlements reflect the desire of producer organizations to find a method of payment more acceptable than either the acreage or marketings approach singly but embodying the useful elements of each approach. Producers would have their entitlements calculated in two ways. One would reflect potential production from the eligible land as suggested by Gilson. The other would be based on past sales of statutory grains as recorded by WGSA in a base period. The producer would have the choice of the higher of the two alternatives.

Basically, hybrid proposals attempt to rectify equity concerns with either the sole application of acreage based or marketings based alternatives. The hybrid proposals deal with the high degree of dilution or sharing of the Crow Benefit by grain shippers with other producers; recognizing individual production performance inherent in the acreage approach, and the inter-producer equity problems in the marketings approach. The dilution problem is addressed by the averaging down of acreage based entitlements, and the addition of more government funding. The inter-producer equity problem is addressed by the provision of allowing the producer to choose either entitlement procedure.

i) Double 80 Proposal

Originally developed by Alberta interests the Double 80 proposal suggests placing two limits on payouts of the Crow Benefit. First, only 80 per cent of the benefit would be paid to producers, the remainder to the railways. Second, a limit of 80 per cent would also be placed upon any entitlement based on acreage eligibility. The proposal also follows the Gilson suggestion that producers have the option of receiving their benefit in cash or as a freight credit to be applied towards freight charges.

The Committee did not receive any submissions documenting or supporting the Double 80 proposal. It appears that producer groups originally advocating this proposal have turned their support to the Freight Entitlement proposal noted below.

ii) Freight Entitlement

The Producer Freight Entitlement proposal, originally developed by Manitoba interests, was presented to the Committee by the Grain Rate Reform Committee. Judging from submissions received by the Committee most producer interests favouring payments to producers have supported this proposal.

Producer entitlements would be calculated with acreage productivity similar to the Gilson proposal and on recorded marketings over an historic period. In both instances the total qualifying grains would be adjusted to total 31.5 million tonnes. Producers would choose either the production or marketings based entitlement. The blended entitlements result in some dilution so that additional funding by the government would be required to equal the level of support provided by paying the railways. It is estimated that this funding would amount to between \$35 and \$70 million annually. An additional feature of the proposal is that producer benefits would be in the form of a freight credit that would be drawn against as grain is delivered. Unutilized credits could be converted into a cash settlement on a quarterly basis.

The Freight Entitlement proposal addresses many of the equity problems related to the distribution of Crow Benefit funds inherent in the sole application of acreage or marketings based entitlements. This approach resolves the current production/marketing price distortions, is resource neutral, and creates an environment conducive to improving efficiency in grain handling and transportation. Because of this it has received widespread support from various producer organizations.

Of particular significance is the manner in which a compromise is reached between providing compensation to all producers capable of growing statutory grains and sharing the compensation with grain shippers who have historically benefitted from the Crow Rate. As the proposal stands, the potential dilution based on acreage established entitlements is shared between producers whose highest entitlement would be acreage based (grain sales outside commercial channels, grain fed on farms, and land used for other purposes), grain producers who have historically used the rail system, and the federal treasury.

Bearing in mind that in 1981/82 the $658.6 million represents the railway revenue shortfall of shipping 31.5 million tonnes of grain, the level of the funds shared by grain shippers with other grain producers under the Freight Entitlement proposal would be constrained to the amount that WGSA recorded marketings exceeded grain shipments. The averaging down of acreage based entitlements to the 31.5 million tonne ceiling would probably reduce the acreage based entitlements substantially below the level in the Gilson proposal. However, the amount of dilution borne by all producers depends, to a considerable extent, on a further government committment in the form of an annual adjustment payment. Should this payment not be forthcoming, a further producer borne dilution would occur.

As with other proposals it is not without problems in several areas.

Equity

The Freight Entitlement proposal does address equity problems inherent in both the acreage and marketings based options. Producers can choose the entitlement base that is to their best advantage. However, the averaging down of acreage entitlements reduces the proportionate compensation to producers who historically have chosen to market part or all of their grain through other than recorded channels. Income and losses through the reduction in grain prices would be equal to the losses incurred by grain shippers using the rail system, however, the level of compensation for producers who did not historically ship all their grain sales would be less than those who utilized the rail system.

Administrative Feasibility

As a dual method of establishing producer shares of the Crow Benefit, the Freight Entitlement proposal would have all the start-up problems outlined above for both the historical marketings and acreage based options. In other words, the administrative difficulties of allocating producer entitlements would be compounded. It is unlikely that either method could be administered without problems of unadequate information, reconciling different sources of data, and the formidable problem of coping with special circumstances.

Uncertainty of Consequences

Although the Freight Entitlement submission set out the consequences of sharing the compensation, there remains a great deal of uncertainty as to their occurance. It is a complex program which is not easily understood. Submissions received by the Committee containing comments on the proposal have varied considerably in their interpretation of the consequences. It is not likely that this problem can be resolved until experimentation on the actual calculation of entitlements can be done. Research done for the Committee, although extensive, did not resolve this problem.

Other Issues

The title "Producer Freight Entitlement" and the procedure by which producer entitlements are drawn against grain shipments gives the visibility of being a transportion subsidy. However, to the extent that benefits are tied in perpetuity to land the proposal connotes a production subsidy on grain and on products other than statutory grains. Some of the land may not have produced statutory grains in the past or may not in the future. The political implications of this perspective cannot be dismissed.

4. CURRENT MARKETINGS DETERMINED

Compensation on the basis of current marketings would be made directly to producers and would encompass all eligible crops sold by farmers. Compensation would no longer be tied to rail transportation exclusively and would include farm sales to grain dealers, other farmers, feedlots, feedmills and food processing firms.

Under this method of payment, statutory crop prices in the prairie region would fall to reflect the higher transportation costs of moving products to export positions. Assuming compensation and no market or transportation constraints, sellers would be indifferent to who bought the grain. Buyers could export the grain, process it in Canada by the milling, distilling and oilseed crushing industries, or feed it to livestock. Unlike the current system there would be no explicit government payment to influence the prices offered by the various users of grains and oilseeds.

The procedure for establishing payments would be as follows[1]:

- All transactions of eligible grains from the Designated Area would be recorded by the grain buyer and filed with a central agency administering the distribution of the government fund. All sales by eligible producers would be recorded regardless of the market outlet. Grain not sold but utilized on farms as livestock feed or seed would not qualify.
- Only the difference between the quantity of grain sold and purchased qualifies for a payment. The total quantity of all statutory grain sold by a farmer would be reduced by any purchases of statutory grain. This step is required to prevent producers from selling grain, buying it back and reselling it again.

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[1] The conceptual and operational foundations were developed, under direction and at the request of the Committee, by Dr. Daryl Kraft of the University of Manitoba. Additional details of the proposal are contained in Appendix 5.

- The sum of all net sales from each farm would be the total quantity of grain eligible for a share of the government funds in support of grain transportation. Since net sales would not be known until the end of the crop year, farmers would receive interim payments through the year.
- All sellers would be identified on all sales by an assigned identification number which would reflect specific producer characteristics. The number would also be used when the producer buys grain. All other buyers of grain; merchants, feed mills, and processing outlets would also be identified by a number. It would be the primary responsibility of all registered buyers to submit the record of purchases to the administrative agency. Records of all eligible grain sales to qualifying producers would be submitted by registered sellers.
- The administrative agency would maintain an account for each seller and buyer. At the end of the year, verification and balancing of all sales and purchases could be made both for individuals and in total. To facilitate administration, a credit card type system of identification could be used.
- The individual grain credits will be adjusted to reflect the distance to ports from each freight zone.

Payment of the entitlement can be seen as a refund in respect of increased grain transportation costs. This payment is named the Grain Transportation Refund (GTR).

Following is a suggested list of grains and oilseeds (as found in the WGTA) eligible for the Grain Transportation Refund (GTR):

- Barley
- Beans (except soybeans) including faba beans, and splits
- Buckwheat
- Canary Seed
- Corn, Cracked
- Corn (not popcorn)
- Flax Seed
- Groats
- Lentils, including splits
- Mustard Seed
- Oats
- Peas, including splits
- Rapeseed or Canola
- Rye
- Sunflower Seed
- Triticale
- Wheat

a. GTR Compared to Acreage Payments

Economic adjustments determined by Agriculture Canada were analyzed under the current system of paying the railways or transferring monies directly to farmers on an acreage basis. The probable adjustments with the GTR are a blend of pay the railways and pay the producer on an acreage basis. Grain and oilseed production under the GTR is projected to be the same as if the railways were paid. The combined grains sales revenue from the market price plus the GTR is only \$2.00 to \$3.00 per tonne less than the receipts projected from pay the railways. Because the effective farm prices of grain and oilseeds under a GTR are projected to be 1.3 percent less than under pay the railways, the reduced use of fertilizer and pesticides forecast under pay the producer is not likely to happen when producer payments are based upon grain sales. Grain exports from the prairies are likely to decline under the GTR, even though the grain production is the same as when the railways are paid. In relationship to pay the railways, grain exports are expected to decline by 2.4 percent because more grain will be utilized by livestock feeders and oilseed crushing industries thereby enhancing economic activity on the prairies.

Feed grain and oilseed prices will decline on the prairies whether the producer is paid on the grain sold or on an acreage basis. The projected outcome for the Canadian hog industry is identical under either pay the producer option. The projected 14 percent increase in hog sales in the prairies is offset by a 1.3 percent reduction in the rest of Canada when the producers receive the monies directly instead of the railways. The growth in prairie income from beef production will be less under the GTR than under an acreage based system. This occurs because there is a minimal decline projected for grain production relative to pay the railways. The land forecast to be transferred out of grains and oilseeds into forages is less than projected under the pay the producers on an acreage base. The gains in expected income from beef will be isolated to finishing cattle on the prairies unless forage crop yields increase on the existing land base. Land currently producing cereal grains and oilseeds will likely continue to produce these crops under the GTR. Forages are relatively less profitable than cereal grains and oilseeds under the GTR.

The estimated loss of 1.1 percent of beef revenue will not change in eastern Canada, even though the growth in beef revenues is expected to be lower in the prairies. This occurs because feeder cattle prices will increase in the prairies by the same amount regardless of how producers are paid.

The GTR should foster a greater growth in Canadian agricultural income then payments to the railways. Canadian grain and oilseed production will be comparable to pay the railways and a substantial potential exists for increased livestock production when farmers are paid on a net grain sales basis. Realizing just a part of the potential will result in more income to Canada.

b. Economic Implications

The current marketings approach has features found in both pay the railways and pay the producer based on historic characteristics. Extending payments to off-farm marketings beyond rail shipments, like the pay the railways alternative, results in an annual distribution of payments which vary according to grain deliveries. Farmers benefiting would be the same as those who would benefit under a pay the railways option. However, similar to historically based producer entitlements, it eliminates the price distortion found in payment to the railways. It permits grain prices to reflect full compensatory grain transportation rates with the resultant implications for potential gains in grain handling and transportation efficiencies. However, unlike acreage based entitlements it retains government payments within the statutory grains sector. Neverthless, despite these similarities and differences which, in many respects, represent a trade-off in resource neutrality, equity, and efficiency concerns, it is unique in terms of economic implications. These are considered below.

i) Resource Neutrality

Since compensation would be paid only on net sales of eligible crops, the proposal could be judged as discriminating against crops not eligible for payment, such as forages and soybeans. A relevant question is the extent to which the benefits of a completely resource neutral policy would be foregone.

Concerning the favouring of statutory grains production, it might be argued that, given the current list of qualifying crops in the WGTA the only major crop discriminated against would be forage. However, it can also be argued that the disincentive to allocate resources to forage production would be compensated for, at least in part, by the pass through effects of lower feed grain prices to the cow-calf sector of the livestock industry thus creating a derived demand for forage production possibilities on western farms.

A further resource use adjustment constraint could occur on grain-livestock farms. Besides the incentive to sell statutory crops, there is an opportunity cost of feeding one's own grain to livestock. Farms specializing on dairy, hogs, poultry or beef production will produce their feed grain requirement if the production costs are below the costs of purchasing grain. To the extent that grain prices will be lower by approximately the amount of the per tonne payment there would be an increased advantage to purchasing feed requirements. Hence, the net sales system of compensation could encourage greater on-farm specialization of crop and livestock production. The extent to which this would occur would depend on individual farm grain-livestock production possibilities as well as a balancing of the benefit payment with additional handling and transportation costs.

ii) Equity

Similar to other pay the producer proposals, the allocation and payment of benefits to producers on a net sales basis would remove grain use pricing distortions. Hence, the source of inequity to grain buyers for prairie consumption, particularly livestock feeders would no longer prevail. However, compared to acreage based proposals, payment would only be made on net grain sales. Farmers who produced and fed grain on their own farm or owners of land producing and marketing non statutory grains would not receive compensation. Compared to the acreage based system this removes what has been judged as an inequitable distribution of the Crow Benefit to producers who have no historic claim to it.

Within the statutory grains sector, equity perceptions are related to the degree of dilution of the Crow Benefit or sharing of it by grain shippers with producers who market grain through other outlets. The net marketings proposal does broaden the payment base to include volumes of grain beyond statutory grains shipments. The benefit payments of $658.6 million, disregarding additional government commitments that might arise from inflation sharing and safety net considerations, relates to a 1981-82 shipments base of 31.5 million tonnes. Since the net marketings proposal would expand the base by adding other qualifying uses, the per tonne amount of payments to current shipments of statutory grains would be reduced. There would be some income lost to grain sellers relative to paying the railways. However, this loss would be distributed across all grain marketings in proportion to total grain and oilseed sales by each farmer.

Precise data on the volume of sales between farmers, farmers and feedmills, and farmers and the food industry is not available. Hence the potential degree of dilution can only be estimated. Estimates of 3.5 to 5.5 million tonnes suggest potential dilution of 10 to 15 per cent. This compensation shortfall, given the current level of the Crow Benefit, would amount to about $2.00 to $3.50 per tonne or around 1.0 to 1.7 per cent of the farm price of statutory grains.

A further perspective is that dilution of the benefit will only occur if grain eligibility exceeds the 1981-82 base of 31.5 million tonnes. If grain shipments fall below this level, dilution will be reduced accordingly. Shipments below 26 to 28 million tonnes will receive the same unit payment under pay the railways or pay the producer. On balance, when possible increased usage of grain for livestock feed is considered, dilution should not be as high as noted above.

iii) Efficiency

Since grain transportation rates would reflect compensatory levels, the opportunity for producers to effect or promote change in modes of transportation and statutory rates would be similar to those in all pay the producer alternatives.

c. Administrative Feasibility

There would not appear to be any reason why a current marketings method of compensation would not be administratively feasible. The data would all be current and much of it is already being recorded by major grain purchasers. Neverthless there would be administrative costs both to agencies recording and forwarding the data and to the central administrative agency, probably the WGSA. Unlike pay the producer alternatives with payments allocated on an historical basis and independent of current production and marketing practices, the current marketings method of compensation would require continuous data recording to establish annual payments. A permanent agency with appropriate staffing would be required. Ongoing administrative costs would be higher than with other payment alternatives.[1]

Also of administrative concern would be control of system abuses. The netting of grain sales and grain purchases provides a constraint on grain recycling. However, close monitoring, and auditing procedures, along with strict penalty provisions may be required to prevent fraud.

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[1] Comparative administration costs are shown in Appendix 7. It should be noted that in comparison with the current pay the railways system the additional incremental administration costs would amount to about $600,000 annually.

d. Other Advantages

There are several other features of the current marketings approach. Among these are:

The system is independent of changes in land tenure. The compensation is not land based. It is producer based. Hence, there are no problems concerning the eligibility of production from new land nor concerning payments to landlords or tenants.

The procedure for setting freight rates would be simplified because the cap of 31.5 million tonnes as set out in the WGTA is no longer relevant in setting freight rates. The Crow Benefit would be apportioned among grain sales regardless of the volume concerned and the freight rates would be set on the basis of total forecast movement. The Canadian Transport Commission would no longer have to set two rates.

Because the payment would be limited to the grains sector, and would apply equally to domestic and export transactions, it would be difficult for other nations to effect offsetting trade measures.

The system would be easily understood by producers. Producers could identify the payment as related to their own marketing performance and hence their share of the Crow Benefit.

The safety net would continue to be available although the freight rate-price ratio would have to be redefined to reflect the net position of producers after receipt of payments.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

THE GRAIN TRANSPORTATION REFUND

The Committee of Inquiry on Crow Benefit Payment has concluded that a new method of payment of government funds in support of western grain transportation is required to enhance agricultural development in Canada and to provide compensation to those who are adversely affected by the ending of the historic Crow Rate.

The method recommended by the Committee calls for the establishment of a **Grain Transportation Refund** (GTR).

GTR payments will be made directly to producers in the Designated Area as defined in the Canadian Wheat Board Act, and they will include all government funds in support of grain transportation including the 1981-82 fund of $658.6 million, and any government contributions under the inflation protection and safety net provisions of the Western Grain Transportation Act.

Payments will be apportioned to individual producers on the basis of their net sales of eligible grains in each crop year, regardless of whether these grains are sold for export, for processing or for the feeding of livestock. There will be no minimum or maximum entitlement. Payments will vary to reflect rail freight charges in the rail freight zones of western Canada.

The GTR could be administered through the Western Grain Stabilization Administration, with payments to producers being made quarterly.

1. INTRODUCTION

> **The committee shall examine all matters that, in its opinion, pertain to the method of payment in respect of grain transportation that would be most conducive to agricultural development in Canada.**
>
> (Section 62(3)
> The Western Grain Transportation Act)

This Chapter discusses the conclusions reached by the Committee, together with the recommendations calling for the establishment of the GTR. It concludes with some other Committee observations relating to efficiency within the grain handling and transportation system.

The paramount responsibility of the Committee of Inquiry on Crow Benefit Payment appointed on April 24, 1984, under the terms of the Western Grain Transportation Act was to determine a method of payment of the Crow Benefit that "would be most conducive to agricultural development in Canada".

Supplementary to that mandate, the Committee was instructed to take into account four criteria: resource neutrality, equity, efficiency and administrative feasibility. The Committee was also instructed to consider the impacts of any method of payment on the grain handling and transportation system in western Canada.

Against that background, the Committee undertook research, and received submissions and engaged in consultations with groups representative of all of the various interests involved.

The Committee reviewed the advantages of all of the methods of payment that have been proposed, both throughout and since the Gilson round of consultations prior to the enactment of the WGTA.

In general, there are two broad approaches to payment of the benefit: a pay the railways approach, which would see the Government of Canada paying the benefit to the railways who, in turn would deduct the amount received from freight charges that would otherwise have been borne by producers; and a pay the producer alternative which would see the government making payments directly to producers, as compensation for the increases in freight rates they would experience as the railways moved to a system of recovering the full costs of grain transportation in the rates charged to producers.

Because the Crow Benefit, an amount which under the old Crow Rate system had grown annually, has been capped at the 1981-82 crop year level of $658.6 million, and because the tonnage of grain to which the benefit was deemed to apply was set at the 1981-82 shipments level of 31.5 million tonnes, *there is no possible system of payment which can result in each individual producer receiving full compensation for freight cost increases*.

The Committee was mindful that, whatever method of payment selected, individual producers in western Canada stood to lose benefits they would have received had the old system remained unchanged, although there are clear if currently unmeasurable advantages from the improvements in the grain transportation system that will result from the approach embodied in the *WGTA*. Because of this, and because future transportation cost increases will be borne largely if not exclusively by producers, the Committee has placed great weight on the importance of finding a method of payment that would retain the total benefit to the grain producing sector, and that would provide significant and effective compensation to those directly affected for the losses of benefit resulting from this change in public policy in Canada.

The Committee reviewed the submissions and arguments put before it, and leaned heavily on the results of the research commissioned by or submitted to it in the course of its work. In the process of defining its recommendations, the Committee reached the following major conclusions:

1. **In order to be "most conducive to agricultural development in Canada", the method of payment must result in the removal of constraints to non-grain agricultural production and marketing activities such as livestock production and other forms of processing in the western region of Canada.**

2. **In the interests of the grain sector in western Canada, it is critical that the method of payment confine payment of the benefit to the grain sector itself, so as to provide significant and effective compensation for benefits lost through the change from the Crow Rate to the WGTA regime.**

3. **In order to contribute to the development of agriculture on a nationwide basis, the method of payment must not result in unfair or disproportionate advantage to sectors of western agriculture relative to those in other parts of Canada.**

4. **The method of payment should make producers aware of the full costs of grain transportation, in order to encourage increased producer interest in enhanced efficiency in the grain handling and transportation system.**

5. **In order to permit producers to select the most efficient possible means of transporting their grain, the method of payment should be independent of the mode of transportation used.**

6. **The railways must be seen to be clearly accountable for their performance to the federal government.**

7. **The method of payment selected should not involve complex or costly new administrative measures, and both the system and its relationships to total transportation costs should be easily understood by producers and others involved in the grain industry.**

2. DISCUSSION OF THE CONCLUSIONS

1. **In order to be "most conducive to agricultural development in Canada", the method of payment must result in the removal of constraints to non-grain agricultural production and marketing activities such as livestock production and other forms of processing in the western region of Canada.**

Especially in the period after 1960, the historic Crow Rate created incentives to the production of statutory grains for export relative to other possibly more economic uses of prairie agricultural resources.

As the Crow gap, the difference between the freight rates actually paid by producers and the full costs of transporting grew, the farm gate price for grain did not reflect the costs of moving grain to export position. Since producers would be unlikely to sell grain locally for less than they could receive for grain sold for export, the farm gate price, often included an amount which reflected the transportation subsidy. By 1981-82, this translated into higher farm gate prices that averaged about $20.90 per tonne more than would have been the case.

Higher farm gate prices for grain raised the operating costs for livestock production and other western industries processing grains and oilseeds. This has tended to constrain the development of a diversified western economy by interfering with market forces and subsequently influencing producer decisions on crop production and marketing strategies.

The pay the railways approach currently in force under the WGTA has the effect of perpetuating the price distortions, although they will be diminished somewhat over time, as the producers' share of total freight costs grows.

The quantitative studies conducted for the Committee indicated that a continuation of this policy would result in a less "well off" outcome for agriculture than would occur through a more resource neutral method of payment.

There have been concerns expressed by some that, if these constraints to such activities as livestock production in the west were eliminated by moving to a more resource neutral method of payment, producers could tend to overexpand livestock production. Those who express these concerns argue that the longer term opportunities in the highly competitive livestock industry are less attractive than those that exist for grain production. They argue that there may be a risk of adverse trade consequences if other nations respond with protectionist measures.

The Committee accepts the proposition that producers are capable of making prudent business decisions as these relate to their production and marketing choices. In a more resource neutral setting, the Committee affirms that production and marketing decisions can and should be made by producers themselves. The record of success of western agriculture demonstrates the ability of producers to conduct their businesses effectively.

Removing the inflated portion of the farm gate price will result in a more competitive livestock industry in western Canada, and will remove one constraint to other value added activities in the western region. This improves the potential for agricultural development and economic growth in the region. A more resource neutral method of payment does not provide an incentive or subsidy to livestock production or any other processing activity. Rather, it removes an artificial constraint to such activity. As such, the Committee sees no reason to fear adverse trade reactions as a result of a resource neutral system of payment.

The Committee is unable to identify any variation of a pay the railways alternative that would not perpetuate market distortions to the detriment of agriculture in Canada.

2. **In the interests of the grain sector in western Canada, it is critical that the method of payment confine payment of the benefit to the grains sector itself, so as to provide significant and effective compensation for benefits lost through the change from the Crow Rate to the WGTA regime.**

While various provisions of the WGTA address inflation protection and the so called safety net provides an element of protection to the grain sector in the longer term against rapid freight rate increases relative to grain prices, there is a clear need for effective and significant compensation to the producers for immediate and short term increases that would result from an early move to full cost freight rates for shipments up to the 31.5 million tonne level.

The basic principle established in the WGTA is that those who suffer significant direct losses as a result of changes in public policy ought to receive compensation that is proportionate to their losses.

Various pay the producer alternatives that have been advanced through the debates and discussions on the method of payment failed to meet this test.

The Gilson approach would have apportioned payments on the basis of the productive capacity of the farm land operated by eligible producers. This would have distributed the benefits among many who did not benefit directly from the Crow Rate in the past.

As a result and in the absence of significant additional government money being provided as recommended by Gilson, it was argued that individual producers shipping statutory grains would have received insufficient compensation in relation to the benefits they would lose through higher freight rates.

Gilson's position was that this spreading of the payment among all holders of land capable of producing statutory grains was equitable, since such possible impacts as lowered land values would affect all those who held such land. He also argued that it was critical for resource neutrality. At the time that Gilson made his recommendations, the Crow Rate applied to a shorter list of grains and grain products. It did not apply to many speciality crops which could be produced on the same land.

With the passage of the WGTA, the list of statutory grains was extended to include virtually all major speciality crops (except soybeans). In the Committee's view, this change diminishes the argument in favour of an acreage based method of payment. It is now possible to achieve significant equity through an alternative method of payment that will confine the benefit within the grain producing sector. In addition, resource neutrality among grains comes closer to realization.

The Committee is also of the view that a method which apportions payments on the basis of acreage does not recognize the quality of farm management. Under such a method, poor management on good land could entitle the farmer to a larger benefit than good management on poor land. Since quality of management is a critical success factor in agriculture, the Committee views this lack of recognition of the importance of farm management as a serious flaw in the acreage based approach.

A number of alternative approaches to pay the producer that were seen as more equitable were put forward during the Committee's consultations and deliberations. In particular, the "freight entitlement" approach suggested by some producer groups would have offered producers the option of basing their entitlement to payments on acreage or historic marketings of statutory grains. It resulted in a somewhat smaller dilution of the benefit to the grain sector than the acreage based approach although it, too, would have required significant additional government funding. This approach included a recognition of actual output, thus recognizing in part the contribution of farm management.

Both the acreage based and the freight entitlement approaches, however, could have involved significant administrative and data base difficulties and both, in the absence of additional funding, would have resulted in relatively high levels of dilution.

In summary, there was no pay the producer alternative advanced in the discussions that would not, in the absence of additional government funding, have resulted in excessively diluted compensation to the grain sector and that did not involve serious administrative and data base problems.

3. **In order to contribute to the development of agriculture on a nationwide basis, the method of payment must not result in unfair or disproportionate advantage to sectors of western agriculture relative to those in other parts of Canada.**

While the Committee has concluded that any acceptable method of payment of the Crow Benefit must remove artificial constraints to the diversification of western agriculture if it is to meet the test of being conducive to agricultural development, there was concern voiced by Quebec agricultural organizations in particular that the payment of the benefit should not result in large financial losses or disruptions of established production patterns in their region.

The most serious eastern concerns related to the impacts that lower feed grain prices in the west might have on the eastern livestock industry. Some argued the western livestock producers would be overcompensated under an acreage based pay the producer formula. Livestock producers would have lower costs because of reduced farm gate prices, and would also receive payments from the Crow Benefit in relation to their land holdings.

It has also been contended that under the acreage based formula, other non-grain producers would receive Crow Benefit payments not available to producers of such products elsewhere in Canada. In effect they would receive compensation when, in fact, they had not incurred an income loss as a result of the policy change.

Some argued that the payments could be interpreted as a production subsidy rather than a transportation subsidy and a possibility of retaliation from Canada's trading partners existed, thereby undermining access to export markets for all Canadian producers.

In relation to the trade issue, the Committee believes that there is little or no cause for concern that the recommended approach will give rise to protectionist responses in respect of livestock or livestock products from our trading partners. Moreover, with respect to grains, because it applies to domestic as well as export transactions, this option would make it more difficult for other countries to take retaliatory or offsetting actions.

A fundamental Quebec concern was related to the impacts of lowered western feed grain prices on eastern livestock interests. The research conducted for the Committee indicates that removing the feed grain price distortions in the west will have only minor impacts on eastern agricultural growth, while contributing to significant additional growth in western agriculture.

Indeed, the results of the studies suggest that, compared to a continuation of the pay the railways approach, removing these distortions by making payments of the benefit to the producer would, by 1995-96, result in net farm incomes being higher by 35 percent in Manitoba, 14 percent in Saskatchewan, and 25 percent in Alberta.

The studies indicated that eastern Canadian agriculture would continue to enjoy significant growth under either a pay the railways or a resource neutral pay the producer approach. Growth in farm income under an acreage based pay the producer option, compared to what would occur given a continuation of a pay the railways approach, was forecast to be only about 1.6 percent lower in Ontario, 1.0 percent in Quebec, and 1.5 percent in the Atlantic provinces.

In terms of total agricultural development in Canada, then, an acreage based method of payment was forecast to result in very significant gains in western Canada, with only marginally less growth in eastern Canada. The GTR will result in somewhat higher grain and oilseed production and higher grain exports than would occur under the acreage based approach, and in somewhat less expansion in the beef sector. The probable agricultural impacts in other regions will be similar under the GTR to those resulting from an acreage based approach.

On balance, the Committee has concluded that payments of the Crow Benefit to non-grain producers are undesirable, and that payments should be limited to those actually involved in the production and sale of statutory grains in any crop year, both as a matter of efficiency, and in terms of perceived equity in other regions of Canada.

As noted in the report, however, it is impossible to forecast all such outcomes with confidence at this time and, accordingly, the Committee has recommended that eastern impacts of the proposed GTR be monitored and appropriate offsetting measures taken as required.

4. **The method of payment should make producers aware of the full costs of grain transportation, in order to encourage producer interest in enhanced efficiency in the grain handling and transportation system.**

Research conducted for the governments of Canada and Alberta indicated a relatively low level of producer awareness of transportation costs including the costs paid directly by producers under the current pay the railways system.

The Committee has concluded the masking of such costs is simply bad economics and bad policy.

Western grain producers are the most directly affected by the change in transportation policy and, in the Committee's view, it is essential that they be provided with full and complete information as to their economic situation under the new policies in order to make appropriate and independent business decisions.

The Committee has concluded that there is no variation of the pay the railways approach that would provide producers with clear information relating to the transportation costs actually associated with the operations of their individual businesses.

5. **In order to permit producers to select the most efficient possible means of transporting their grain, the method of payment should be independent of the mode of transportation used.**

In the passage of the WGTA, Parliament recognized that, by paying the Crow Benefit to the railways, it was favouring rail transportation over trucking, even in situations where, in the absence of this subsidy, trucks might offer superior efficiency.

Historically, the trucking industry had played a significant role in transportation of the speciality crops which, prior to the passage of the WGTA, had not been considered to be statutory crops and were therefore not entitled to rail transportation subsidies. Subsequently, a system of offsetting payments in respect of trucking costs was included among the measures put in place until the 1985-86 review of the Act.

It is not possible to forecast with certainty the role that trucking will play in future grain transportation, but, the Committee believes the producer should be free to select the mode of transportation which offers the greatest efficiency. Especially in light of what must be considered to be the continuing phenomenon of rationalization of the grain handling and transportation system in Canada, the Committee has concluded that the benefit must be paid in a way that does not favour one mode of transportation over another, but rather leaves such decisions to the individual producer.

The pay the railways approach results in an undesirable incentive for the use of rail transportation rather than trucking, unless accompanied by offsetting payments, which, in the Committee's view, unnecessarily complicate the system and runs counter to the objectives of the National Transportation Act.

6. **The railways must be seen to be clearly accountable for their performance to the federal government.**

One of the arguments in favour of the pay the railways alternative that has struck a positive emotional chord in western Canada has been that, because such an approach permits the government at any time to withhold payment in the event of inadequate railway performance, it offers an additional protection to western grain producers.

In pure economic terms, the Committee sees little merit to this argument. Given compensatory rates for grain transportation, there are strong market incentives for the railways to perform effectively in this sector. Indeed, since the passage of the WGTA, there is strong evidence that they are doing so.

Nonetheless, the Committee recognizes that there is significant historic distrust of the railways among western grain producers. Accordingly, the Committee has concluded that, in order to be acceptable to producers, the method of payment selected must involve clear railway accountability to the government.

7. **The method of payment selected should not involve complex or costly new administrative measures, and both the system and its relationships to total transportation costs should be easily understood by producers and others involved in the grain industry.**

One of the major criticisms of the acreage based payments was that it would involve excessive administrative costs and complexities. The computation of a producer's entitlement was complex. The procedure drew on numerous data sources, and would have been difficult to explain. The freight entitlement formula, while it reduced problems of dilution to the grain sector and recognized farm management, had its own complexities and data base problems.

The pay the railways alternative offers more apparent administrative efficiencies, although it should be noted a great deal more administrative cost and complexity is involved in this system than is readily apparent.

The great weakness of the pay the railways alternative, in light of this conclusion, is that the relationship of the funds being transferred and the transportation costs borne by producers is far from clear.

3. THE COMMITTEE'S CONCLUSIONS AND THE GRAIN TRANSPORTATION REFUND

It will be clear from the analysis that neither the pay the railways nor the pay the producer alternatives that have been proposed are considered to be appropriate.

In the final analysis, the Committee determined that the two most important tests that any acceptable method of payment must meet were, first, the removal of constraints to diversification in western agriculture and, second, the provision of significant and proportional compensation to grain producers who were losing an historic benefit because of a change in government policy.

The pay the railways alternative fails to meet the first test. It perpetuates unintended incentives for the production and export of statutory grains. In the absence of the railway payment more efficient uses of western agricultural resources, would diversify and expand the economy.

The Crow Rate started to distort grain and oilseed prices in about 1960, when the difference between freight rates charged for shipping grain and the full costs of transportation widened. Indeed, as the difference widened the distortive effects on prairie agriculture grew and was a reason why it became necessary to develop a new transportation policy.

Thus, selection of a pay the railways alternative would perpetuate one of the most fundamental problems that the WGTA is intended to resolve: that of resource neutrality.

On the face of it, the pay the railways alternative meets the secondary test of providing significant and proportional compensation to producers, although, as shipments increase beyond the 31.5 million Crow cap, the level of compensation will be eroded over time as the payments are spread over increased shipments.

The pay the producer alternatives considered during the consultative process meet the first test - that of removing constraints to agricultural diversification and development. But the basis for payment under these alternatives would result in payments being made to those outside the grain sector who do not suffer any direct loss from the new federal policy and, conversely, it involves disproportionately low payments to grain producers who are most affected.

The challenge faced by the Committee, then, was to devise a method of payment that would meet both tests, and would provide the main advantages of both the pay the railways and the pay the producers alternatives, without their disadvantages.

The Committee believes that the proposed GTR achieves both objectives.

The proposed GTR is "conducive to agricultural development in Canada". It eliminates the distortions in farm gate grain prices that have acted as constraints to the diversification and development of western agriculture. Because the WGTA extended the list of statutory crops to include virtually all specialty crops, it also restores a high degree of resource neutrality within the grain sector.

The GTR provides significant and proportional compensation to grain producers, those who are most directly affected by this change in government policy. Dilution under the GTR is only about half what it would have been under acreage based formulae, and the dilution occurs entirely among farmers selling grain. This avoids any transfer of benefits from the grain farmers to other sectors of western agriculture.

Because it is based on actual marketings of grain, the GTR involves an implicit recognition of the importance of individual producer management. It will facilitate on-farm production mix changes that will benefit the individual farmer and agriculture in general.

By confining payments entirely to the grain sector the GTR avoids compensating livestock or other non-grain producers in western Canada. Producer groups in Quebec in particular have argued that payments to such producers would result in an unfair competitive advantage for them vis à vis their competitors in other regions. In addition, there have been concerns that payments outside the grain sector could raise questions under GATT or other international trading agreements. The GTR approach, with payments confined to the grain sector and applying to domestic as well as export transactions makes it more difficult for other nations to take offsetting actions.

The quantitative studies commissioned by the Committee indicate a resource neutral method of payment will result in very significant improvements in western farm incomes, with only marginally lower growth in eastern agriculture than would have occurred if the pay the railways approach were to be continued. The GTR approach will result in more grain and oilseed production and higher grain exports than is estimated to occur with an acreage based payment. Exports under the GTR will be somewhat lower than would result from a continuation of pay the railways because more feed grains will be consumed by the growth in the beef finishing and hog sectors. Agricultural outcomes in other regions of Canada will be similar under the GTR to those that would result from an acreage based pay the producer approach.

The Committee recommends that impacts on eastern agriculture be monitored and, in the event of adverse impacts, that appropriate offsetting measures be taken. This is in accordance with the principle established in the WGTA that those who suffer losses from such changes in transportation policy ought to be compensated.

The GTR reveals the full costs of transportation to producers and should encourage greater producer pressure for enhanced efficiency in grain handling and transportation.

The GTR will provide payments that are neutral with respect to the mode of transportation chosen. This will permit producers to make decisions as between rail or truck transportation based on their own business interests.

The performance bonding recommended provides clear and tangible railway accountability for performance to the government.

Finally, the GTR can be integrated into the existing administrative structure of the Western Grain Stabilization Administration, resulting in minimal administrative costs. Interim quarterly payments, with annual reconcilations, will provide producers with even cash flows once the GTR is in operation. The mechanics for all aspects of GTR are discussed in the report, and the Committee believes it to be entirely feasible. In addition, its application and the basis on which payments are apportioned are clear and simple.

In sum, it is the conclusion of the Committee that the GTR meets the requirements of the legislative mandate set forth in Section 62 of the WGTA, and the criteria assigned the Committee by the Minister of Transport. It also meets the requirements set forth in the various conclusions that grew out of the Committee's consultations and deliberations.

4. RECOMMENDATIONS

1. **The Committee recommends** that a Grain Transportation Refund (GTR) consisting of the 1981-82 fund of $658.6 million and government contributions through the inflation protection and safety net provisions of the WGTA be paid directly to producers in the CWB Designated Area.

2. **The Committee recommends** that the Grain Transportation Refund be allocated on the basis of net sales of eligible grains in each crop year, with no minimum or maximum limits on the producer's entitlement.

3. **The Committee recommends** that the payments to individual producers vary directly with the rail freight rates charged in each freight zone.

4. **The Committee recommends** that the role of the Western Grain Stabilization Administration be expanded to include administrative responsibility for the distribution of the Grain Transportation Refund, including all accounting activities involved with purchases and sales records, system monitoring and payments to producers.

5. **The Committee recommends** that Grain Transportation Refund payments be made quarterly to producers through the Western Grain Stabilization Administation.

6. **The Committee recommends** that the railways be required to post substantial performance bonds to ensure that they satisfy performance requirements as defined by the Grain Transportation Agency.

7. **The Committee recommends** that the principle of compensation be recognized as applying equally to eastern Canadian agriculture where losses resulting from this change of policy are clearly identified; and that an assessment of the impacts of the GTR be conducted after an appropriate period of time with compensation provided where justified in the same proportion of losses as in western Canada; the Committee also recommends that such compensation be distributed among eastern provinces in proportion to identified income losses resulting from this change in the method of payment.

8. **The Committee recommends** that all aspects of the GTR, including the effectiveness of necessary legislative measures to be included in the WGTA and the administrative arrangements for its operation be subject to regular monitoring and review.

9. **The Committee recommends** that, in any future review of the GTR, consideration be given to the desirability and feasibility of basing future GTR payments on a rolling average of net grain sales to achieve additional resource neutrality.

10. **The Committee recommends** that the GTR be implemented in the first crop year following amendments to the WGTA in respect of payment, safety net provisions and railway bonding requirements.

5. OTHER OBSERVATIONS

The mandate of the Committee required that it focus its attentions on the identification of a method of payment of the Crow Benefit that would be "most conducive to agricultural development in Canada". In the Committee's view, the proposed Grain Transportation Refund fulfills that mandate. In the course of its deliberations and consultations, however, the Committee became aware of a number of other matters relating to grain transportation upon which it wishes to make the following observations.

6. CONSTRAINTS TO EFFICIENCY IN THE GRAIN HANDLING AND TRANSPORTATION SYSTEM

The Committee believes that the GTR, by making full transportation costs evident to producers and removing a bias between the modes of transportation serving the grain industry, will act as a spur to enhanced efficiency in grain handling and transportation in western Canada.

There are, however, a number of features in the system embodied in the WGTA that act as obstacles to such efficiency gains. The overall structure of freight rates, and the conditions under which rates may be changed or altered takes too little account of system utilization or cost factors as they relate to shipments between various points or at various times. The Committee is concerned that such rigidities will hinder prompt system responses to producer pressures for enhanced efficiency.

The Committee is further concerned that the four year review of railway costing may not allow adequate time for payback of investments and may, by consequence, be a deterrent to long term, strategic investments for enhanced efficiency.

While such matters do fall outside the direct mandate of the Committee, it is hoped that they will receive due consideration as part of the scheduled 1985-86 review of the Western Grain Transporation Act.

REFERENCES

Agriculture Canada, (1983), LIVESTOCK MARKET REVIEW, Marketing and Economics Branch, Ottawa.

Angus Reid Associates Inc., (1985), ALBERTA PRODUCERS' GRAIN TRANSPORTATION SURVEY, Government of Alberta, Edmonton.

Arcus Consulting Ltd., (1985), AN ANALYSIS OF ALTERNATIVE METHODS OF PAYING THE GOVERNMENT COMMITMENT TO THE COSTS OF GRAIN TRANSPORTATION, Canadian Co-operative Wheat Producers, Calgary, Winnipeg, and Regina.

Canadian Grain Commission, (1984), EXPORTS OF CANADIAN GRAIN AND WHEAT FLOUR, Economics and Statistics Division, Winnipeg.

Canadian Wheat Board, ANNUAL REPORT 1982/1983, Winnipeg.

Chase Econometrics, (1982), AN ECONOMIC ANALYSIS OF THE PROPOSED POLICY FOR REVISING STATUTORY GRAIN RATE STRUCTURE.

Coffin, H. G., (1984), WESTERN GRAIN TRANSPORTATION INITIATIVES AND AGRICULTURE IN EASTERN CANADA, Canadian Journal of Agricultural Economics, 32(July): 269-281.

Economic Council of Canada (1984), WESTERN TRANSITION, Canadian Government Publishing Centre, Supply and Services Canada, Ottawa.

Fields, V. J. and Kraft, D. F., (1980), THE INFLUENCES OF GRAIN FREIGHT RATES ON THE PRAIRIE LAND MARKET IN THE PRAIRIE PROVINCES, University of Manitoba, Winnipeg.

Gilson, J. C., (1982), WESTERN GRAIN TRANSPORTATION: REPORT ON CONSULTATIONS AND RECOMMENDATIONS, Canadian Government Publishing Centre, Supply and Services Canada, Ottawa.

Government of Alberta, (1984), PROPOSALS FOR AN INDUSTRIAL AND SCIENCE STRATEGY FOR ALBERTANS 1985 TO 1990, White Paper, Edmonton.

Government of Canada, (1982), THE EFFECTS OF THE WESTERN GRAIN TRANSPORTATION INITIATIVE ON AGRICULTURE IN EASTERN CANADA, Report of the Working Group, Agriculture Canada, Ottawa.

Government of Canada, (1983), REPORT OF WORKING GROUP ON PRODUCER PAYMENTS, Agriculture Canada, Ottawa.

Harvey, D. R., (1982), AN ECONOMIC ANALYSIS OF THE CROW RATES, Working paper prepared for Agriculture Canada, Ottawa.

Hay, K. A., and Lovatt, M. O., (1984), FREIGHT RATE ADJUSTMENT IMPLICATIONS FOR CANADA'S PORK TRADE WITH JAPAN, Working paper prepared for Agriculture Canada, Ottawa.

Heads, J., (1982), REPORT OF THE TASK FORCE ON RATES, Transport Canada, Ottawa.

IBI Group, (1985), THE ROLE OF TRUCKING IN THE GRAIN INDUSTRY, Transport Canada, Ottawa.

Kerr, W. A., and Ulmer, S. M., (1984), THE IMPORTANCE OF THE LIVESTOCK AND MEAT PROCESSING INDUSTRIES TO WESTERN GROWTH, Discussion Paper No.255, Economic Council of Canada, Ottawa.

Kirk, B. (1983), AGRICULTURAL IMPACTS OF CROW CHANGE, Marketing and Economics Branch, Agriculture Canada, Ottawa.

Lerohl, M. L., et al, (1984), CONSEQUENCES OF ALTERNATIVE METHODS OF PAYMENT OF THE CROW BENEFIT, Prepared for Alberta Economic Development and Alberta Agriculture, University of Alberta, Edmonton.

Loyns, R.M.A. and Carter, C.A., (1984), GRAINS IN WESTERN CANADIAN ECONOMIC DEVELOPMENT TO 1990, Economic Council of Canada, Ottawa.

Norrie, K.H., (1983), NOT MUCH TO CROW ABOUT: A PRIMER ON THE STATUTORY GRAIN FREIGHT RATE ISSUE, Canadian Public Policy, 4(December): 434-455.

Schmitz, A., and Rosaasen, K.A., (1984), THE SASKATCHEWAN BEEF INDUSTRY: CONSTRAINTS AND OPPORTUNITIES FOR GROWTH, Technical Bulletin BL:84-02, University of Saskatchewan, Saskatoon.

Schweitzer, T.T., (1984), OLD MYTHS AND NEW CHOICES: RAILWAY FREIGHT RATES AND WESTERN ECONOMIC DEVELOPMENT, Discussion Paper No.269, Economic Council of Canada, Ottawa.

Sparrow, Hon. H.O., (1984), SOIL AT RISK-CANADA'S ERODING FUTURE, A Report on Soil Conservation by the Standing Committee on Agriculture, Fisheries, and Forestry, to the Senate of Canada, Ottawa.

Stabler, J.C., (1985 a), ASSESSMENT OF THE IMPACT OF ALTERNATIVE METHODS OF PAYMENT ON SMALL COMMUNITIES IN SASKATCHEWAN, University of Saskatchewan, Saskatoon.

Stabler, J.C., (1985 b), TRADE CENTER VIABILITY IN THE PRAIRIE REGION, (Draft), University of Saskatchewan, Saskatoon.

Statistics Canada, (1984 a), GRAIN TRADE OF CANADA 1982-1983, Supply and Services Canada, Ottawa.

Statistics Canada, (1984 b), HANDBOOK OF FIELD CROP STATISTICS 1952-53 TO 1983-84, Agriculture Statistics Division, Ottawa.

Tyrchniewicz, E.W., (1984 a), WESTERN GRAIN TRANSPORTATION INITIATIVES: WHERE DO WE GO FROM HERE?, Canadian Journal of Agricultural Economics, 32 (July): 253-268.

Tyrchniewicz, E. W., (1984 b), INDUSTRIAL OPPORTUNITIES IN THE AGRI-BUSINESS AND FOOD AND BEVERAGE INDUSTRIES IN MANITOBA ARISING FROM THE WESTERN GRAIN TRANSPORTATION ACT, Department of Regional Industrial Expansion, Winnipeg.

Waithe, D., (1984), EVOLUTION OF THE PRIMARY ELEVATOR SYSTEM IN WESTERN CANADA, Agriculture Canada, Ottawa.

Weaver, G.D., Nibson, M.J., and R.E. Turney, (1982), PROSPECTS FOR THE PRAIRIE GRAIN INDUSTRY 1990, Canada Grains Council, Winnipeg.

APPENDIX 1

GLOSSARY

Crow Rate

The maximum freight rate the railways were permitted to charge for the movement of grain and grain products in western Canada. The Crowsnest Pass Rate Agreement was signed in 1897 and the rates were in effect, with one interruption, until the passage of The Western Grain Transportation Act in 1983.

Compensatory Rate

A freight rate which recovers all variable costs and normally makes a contribution to fixed costs.

Statutory Rate

The freight rate for the movement of grain and grain products (as listed in Schedule I of the WGTA) from various points in western Canada to ports of export (i.e. Thunder Bay, Churchill, Vancouver, Prince Rupert). The rate changes each crop year and is derived from the base rate scale in Schedule II of The Western Grain Transportation Act.

Statutory Grains

Those grains listed in Schedule I of The Western Grain Transportation Act and eligible to be moved by rail at the statutory rate. (Schedule I also includes statutory grain products which may be shipped at the statutory rate.)

Base Volume ("Cap")

The total movement of statutory grains and products shipped by rail in the 1981-82 crop year and equal to 31.5 million tonnes.

Crow Gap

The difference between what it cost the railways to move statutory crops and products in 1981-82 and the sum of what the railways received for moving statutory crops from the grain producers through the Crow Rate.

Crow Benefit

In terms of the WGTA it is defined legally as follows for purposes of making government payments to the railways:

a) Between January 1, 1984 and July 31, 1984, $286 million.
b) For the 1984-85 crop year, $599.6 million.
c) For the 1985-86 crop year, $629.1 million.
d) For the 1986-87 and subsequent crop years, $658.6 million.

The value of $658.6 million is equal to the Crow Gap. The increasing value of the Crow Benefit results from the phasing in of constant costs which the railways are allowed to recoup through the statutory rate.

Unless specifically referenced in the report, when the Committee uses the term Crow Benefit, it includes the $658.6 million plus any payments under the cost sharing and safety net provision of the WGTA.

Government Cost Sharing

The Government of Canada pays annual rail cost increases in excess of 3 percentage points per year to 1985/86, and 6 percentage points per year thereafter, on all tonnes shipped up to the base volume of 31.5 million tonnes.

Government Commitment

An amount equal to the sum of the Crow Benefit of $658.6 million, the government share of cost increases, and any government funds paid under the shipper share limitation.

Shipper Share or Safety Net

A provision in The Western Grain Transportation Act requires the Government of Canada to ensure that average statutory freight rates paid by shippers in each calendar year do not exceed a defined percentage of the weighted selling price as measured by the in-store asking price at principal port of export, of a "basket" of six grains. Percentages are 4, 5, 8, and 9 for calendar years 1984 through 1987 respectively, and 10 for 1988 and thereafter.

APPENDIX 2

ORGANIZATIONS SUBMITTING BRIEFS TO THE COMMITTEE

Alberta Cattle Commission
Alberta Cattle Feeders' Association
Alberta Feed Grain Users Association
Alberta Soft White Spring Wheat Growers Association
Alberta Wheat Pool
Calgary Chamber of Commerce (The)
Canadian Cattlemen's Association
Canadian Co-operative Wheat Producers (Prairie Pools Inc.)
Canadian Dehydrators Association
Canadian Trucking Association
CN Rail
CP Rail
Canola Crushers of Western Canada
Coopérative Fédérée de Québec
Federal Industries Ltd.
Flax Growers Western Canada
Grain Rate Reform Committee
Lakeside Farm Industries Ltd.
Livestock Feed Board of Canada
Manitoba Cattle Producers Association
Manitoba Egg and Poultry Producers
Manitoba Farm Business Association
Manitoba Hog Producers' Marketing Board
Manitoba Milk Producers' Marketing Board
Manitoba Pool Elevators
National Farmers Union
Nova Scotia Federation of Agriculture
Ontario Soya-Bean Growers' Marketing Board
Palliser Wheat Growers Association
Prairie Farm Commodity Coalition
Saskatchewan Canola Growers Association
Saskatchewan Stock Grower's Association
Saskatchewan Wheat Pool
St. Lawrence Task Force
Unifarm
L'Union des Producteurs Agricoles
United Grain Growers Limited
Western Barley Growers Association

Provincial Governments

Alberta
British Columbia
Manitoba
New Brunswick
Ontario
Prince Edward Island
Saskatchewan

APPENDIX 3

STUDIES COMMISSIONED BY THE COMMITTEE

CONSULTANTS

Carter, R. (1985), THE CROW SUBSIDY, IS A COMPENSATION MECHANISM FOR QUEBEC FARMERS APPROPRIATE? Ecole Nationale d'Administration Publique, Quebec

Hollander, A. (1984), THE EGG AND POULTRY INDUSTRIES UNDER CROW CHANGE, University of Montreal, Montreal.

Kraft, D.F., (1985), SYSTEM FOR DISTRIBUTING W.G.T.A. BENEFITS ON THE BASIS OF CURRENT SALES, University of Manitoba, Winnipeg.

Ludwick, E.M., (1984), EFFECTS OF ALTERNATIVE METHODS OF PAYMENT ON DOCKAGE PRACTICES AND THE SHIPMENT OF SCREENINGS, E.M. Ludwick and Associates Inc., Winnipeg.

Rosaasen, K.A., and Schmitz, A., (1985), THE INFLUENCE OF FEED GRAIN FREIGHT RATES ON THE RED MEATS INDUSTRY IN THE PRAIRIE PROVINCES, University of Saskatchewan, University of California at Berkley.

Saint-Louis, R., (1984), DEVELOPMENTS IN EASTERN CANADA'S FEED GRAIN SECTOR SINCE THE FIRST REVISION OF THE STATUTORY CROW'S NEST PASS RATE STRUCTURE, Laval University, Quebec.

AGRICULTURE CANADA

AGGREGATE FARM INCOME IMPACT OF ALTERNATIVE METHODS OF CROW BENEFIT PAYMENT, February 1985.

AGGREGATE FERTILIZER, PESTICIDE AND FARM MACHINERY IMPACT OF ALTERNATIVE FREIGHT RATE POLICY OPTIONS, November 1984.

AGRICULTURAL IMPACTS OF ALTERNATIVE METHODS OF PAYMENT: SYNOPSIS, January 1985.

FARM LEVEL IMPACTS OF ALTERNATIVE METHODS OF CROW BENEFIT PAYMENT, February 1985.

PRODUCTION AND MARKETING RESPONSES TO ALTERNATIVE METHODS OF PAYMENT, November 1984.

AN ANALYSIS OF THE TECHNICAL/ADMINISTRATIVE FEASIBILITY OF LAND-BASED PRODUCER PAYMENT OPTIONS: EXECUTIVE SUMMARY, February, 1985.

CANADIAN TRANSPORT COMMISSION

THE DISTRIBUTION OF GRAIN HANDLING AND TRANSPORTATION COSTS FOR PRAIRIE FARMERS 1977/78 TO 1995/96, February 1985.

EFFECTS OF A REDUCTION IN THE NUMBER OF GRAIN DELIVERY POINTS ON THE CANADIAN PRAIRIES, February 1985.

APPENDIX 4

STATISTICAL TABLES AND FIGURES

TABLE 1

NUMBER OF PRIMARY ELEVATORS AND DELIVERY POINTS IN WESTERN CANADA 1956 TO 1983

Year	Primary Elevators	Delivery Points
1956	5,366	2,083
1961	5,269	2,055
1966	5,083	1,960
1971	4,849	1,835
1976	3,964	1,495
1977	3,739	1,417
1978	3,658	1,394
1979	3,528	1,351
1980	3,324	1,295
1981	3,133	1,246
1982	2,934	1,217
1983	2,800	1,181

Note: Due to a change in licensing requirements in 1984 allowing two adjacent facilities to be operated as one, the number of licensed elevators dropped to 1,967 in 1984. On the other hand, the number of delivery points dropped to 1,155 in 1984.

Source: Canadian Grain Commission

TABLE 2

AGRICULTURE CANADA MODEL ASSUMPTIONS AND RESULTS

GRAIN PRICE, PRODUCTION, AND EXPORT CHANGES SUMMARY TABLE

	1983-84 WGTA Baserun	1995-96 WGTA Baserun	1995-96 Compensatory Rate Option
Composite Grain Price at Port-$/tonne	193.41	249.94	249.94
Freight Rate-$/tonne	5.36	31.85	51.75
Handling Cost-$/tonne	17.31	31.08	31.08
Net Price[1]-$/tonne	170.74	187.01	167.11
Production-mil.tonnes	41.7	51.5	51.2
Exports[2]-mil.tonnes	28.1	33.9	32.8

[1] The net price under compensatory rates does not include an allowance for the payment of government compensation. If, for example, the projected government committment of $808 million in 1995-96 were to be paid on the basis of off-farm grain marketings, assumed to be 90 percent of production, then the payment per tonne would equal $17.53.

[2] The projected drop in grain exports under compensatory rates in 1995-96 is equal to the change in grain production plus the feed grain diversion from the export to the local market.

Note: All values in nominal dollars.

TABLE 3

AGRICULTURE CANADA MODEL ASSUMPTIONS AND RESULTS

LIVESTOCK PRODUCTION AND PRICE CHANGES
SUMMARY TABLE

	1983-84 WGTA Baserun	1995-96 WGTA Baserun	1995-96 Compensatory Rate Option
Western Canada:			
- Hog output[1]	585	600	685
- Hog Price[2]	73.25	101.97	98.80
- Beef output[3]	1,602	1,969	2,342
- Beef Price[4]	82.16	121.90	120.16
Eastern Canada:			
- Hog output	1,331	1,506	1,486
- Hog Price	73.25	101.97	99.84
- Beef output	909	1,073	1,061
- Beef Price	82.16	121.90	119.92

[1] Hog output is sales in million lbs. chilled trimmed carcass.

[2] Index 100 hog prices at Toronto ($/cwt.)

[3] Beef output is thousand head steer and heifer slaughter.

[4] A1A2 steer prices at Toronto ($/cwt.)

Note: All values in nominal dollars.

TABLE 4

VALUE OF CROP AND LIVESTOCK OUTPUT[1], WESTERN CANADA

WGTA Baserun and Compensatory Rate Option

(million nomimal dollars)

	1983-84 WGTA Baserun	1995-96 WGTA Baserun	Compensatory Rate Option: 1995-96	
			Change from 1995-96 Baserun[2]	Change from 1995-96 Baserun
	$	$	$	%
Grain				
Value of Production	8,118	12,880	-21	-0.2
Value of Exports[3]	5,478	8,599	-146	-1.7
TOTAL			-167	
Livestock				
Hogs	488	756	+104	+14
Beef	1,259	2,315	+431	+19
TOTAL	1,747	3,071	+535	
NET CHANGE (LIVESTOCK+GRAIN)			+368	+2.3

[1] Value of production measures the changes in crops and livestock produced and multiplied by export prices.

[2] These estimates represent the value of the change in output for western Canada and do not include the income transfers between agricultural sectors in the prairies that underlie the net farm income estimates in Table 5.

[3] The change in exports should not be interpreted as a transfer of benefits from the grain to livestock sector. Value is still received by the grain sector but it is marketed through livestock and included in livestock gross receipts. The price of export crops remains unchanged at the port but the value falls because less feed grain is exported.

SOURCE: Agriculture Canada

TABLE 5

AGGREGATE REALIZED NET FARM INCOME, WESTERN CANADA

WGTA Baserun and Compensatory Rate Option

(million nominal dollars)

	1983-84 WGTA Baserun	1995-96 WGTA Baserun	Compensatory Rate Option: 1995-96	
			Change from 1995-96 Baserun	Change from 1995-96 Baserun
	$	$	$	%
Manitoba	288.4	407.5	+143.9	+35
Saskatchewan	876.4	1,285.4	+175.8	+14
Alberta/B.C.	730.7	1,052.3	+259.9	+25
Western Canada	1,895.5	2,745.2	+579.6	+21

NOTE: Both options include government payments.

SOURCE: Agriculture Canada

TABLE 6

FARM INPUT EXPENDITURES, WESTERN CANADA

WGTA Baserun and Compensatory Rate Option

(million nominal dollars)

	1983-84 WGTA Baserun	1995-96 WGTA Baserun	Compensatory Rate Option: 1995-96	
			Change from 1995-96 Baserun	Change from 1995-96 Baserun
	$	$	$	%
Fertilizers	619.2	1,164.2	-15.2	-1.3
Pesticides	366.0	691.0	-6.3	-0.9
Farm Machinery & Equipment	1,031.0	1,585.5	+48.9	+3.1

SOURCE: Agriculture Canada

TABLE 7

AVERAGE FARM NET INCOME, WESTERN CANADA 1987-1996 (nominal $)

PROVINCE/FARM SIZE & TYPE/SOIL ZONE	WGTA	COMPENSATORY RATE OPTION	DIFFERENCE DUE TO POLICY CHANGE
Manitoba, medium grain, black soil zone:	13,360	12,378	-982
Saskatchewan, small grain:			
a) Brown soil zone	-40	-684	-644
b) Dark brown soil zone	3,020	2,564	-456
c) Black soil zone	3,680	3,850	+170
Saskatchewan, large grain:			
a) Brown soil zone	32,390	32,718	+328
b) Dark brown soil zone	14,070	15,937	+1,867
c) Black soil zone	33,850	33,145	-705
Alberta, medium grain:			
a) Brown soil zone	23,500	22,358	-1,142
b) Dark brown soil zone	30,840	29,100	-1,740
c) Black soil zone	31,150	29,369	-1,781
Manitoba, small cow-calf, black soil zone:	21,100	22,645	+1,545
Manitoba, high grain, low cattle, cow-calf yearling, black soil zone:	4,400	4,253	-147

continued

Table 7 (continued)

PROVINCE/FARM SIZE & TYPE/SOIL ZONE	WGTA	COMPENSATORY RATE OPTION	DIFFERENCE DUE TO POLICY CHANGE
Manitoba, small cow-calf, feeder:			
a) Stocker	28,320	30,340	+2,020
b) Direct	7,200	9,273	+2,073
Saskatchewan, small cow-calf:			
a) Brown, dark brown soil zone	17,140	21,157	+4,017
b) Black soil zone	12,040	13,177	+1,137
Saskatchewan, high grain low cattle, cow-calf yearing:			
a) Brown, dark brown soil zone	26,310	29,094	+2,784
b) Black soil zone	20,170	20,044	-126
Saskatchewan, small cow-calf, feeder:			
a) Stocker	32,770	35,459	+2,689
b) Direct	37,040	39,470	+2,430
Alberta, Large cow-calf:			
a) Brown, dark brown soil zone	48,290	57,851	+9,561
b) Black soil zone	10,300	9,991	-309
Alberta, low grain, high cattle, cow-calf yearling:			
a) Brown, dark brown soil zone	23,250	26,613	+3,363
b) Black soil zone	7,040	8,779	+1,739

continued

Table 7 (continued)

PROVINCE/FARM SIZE & TYPE/SOIL ZONE	WGTA	COMPENSATORY RATE OPTION	DIFFERENCE DUE TO POLICY CHANGE
Alberta, large cow calf feeder:			
a) Stocker	74,600	82,670	+8,070
b) Direct	105,400	114,023	+8,623
Alberta, feedlot direct:	234,200	304,330	+70,130
Saskatchewan, hog-grain			
a) Small	13,689	12,883	-806
b) Medium	18,988	17,909	-1,079
c) Large	83,176	81,311	-1,865

Notes on table results:

1. The case farms were selected to represent a range of farms. They are neither average nor typical farms, nor do they cover all types of situations.

2. The following restricions on the models should be noted:
   a) The land base is fixed for the planning period;
   b) no new crops can be added, although changes in crop mix and summer fallow/crop area are possible;
   c) within the mixed farm models, substitution between enterprises is not feasible with the exception of the cow-herd which was allowed to expand by a maximum of 15 percent.

3. Farm to farm variations in net income for the case grain farms are due to basic differences in debt/equity ratios, asset levels and land tenure circumstances. These income differences are not important for the purposes of this analysis - rather it is the differences in net income by policy option for a given farm that are important. Anomalies and other minor inconsistencies in the net income estimates stem primarily from the rather crude methodology used to calculate producer compensation payments. Government compensation payments at the individual farm level were calculated by expressing estimates of aggregate producer

continued

Table 7 (continued)

payments by policy option on a per tonnage of production basis using estimated 1985-86 prairie-wide production of the 6 major grains. Possible locational differences in income effects for the case grain farms were masked by the use of different case farms for different soil zones as well as the use of provincial average freight rate changes to determine farm-gate grain price changes.

4. In the case of the beef-grain and hog-grain case farms, the income effects of a policy change are essentially non-adjustment effects. As noted above, expansion of the livestock enterprise is restricted and the farms adjusted by the full permissable amount under the WGTA base case. Thus the income effects under the producer payment options do not reflect the expansion in livestock output projected in the aggregate analysis. The net income estimates for livestock farms are therefore minimum impacts for those producers who would not or could not adjust their enterprise mix in response to lower grain prices.

5. All three hog-grain farms produced considerably more grain than they fed on-farm and were not allowed to expand their hog operations in response to a fall in grain prices. Lower grain prices and slightly lower hog prices under compensatory rates therefore resulted in a somewhat lower net income in each case.

SOURCE: Agriculture Canada

TABLE 8

VALUE OF LIVESTOCK OUTPUT, EASTERN CANADA

WGTA Baserun and Compensatory Rate Option

(million nominal dollars)

	1983-84 WGTA Baserun	1995-96 WGTA Baserun	Compensatory Rate Option: 1995-96	
			Change from 1995-96 Baserun	Change from 1995-96 Baserun
	$	$	$	%
Hogs	1,110	1,897	-25	-1.3
Beef	714	1,269	-14	-1.1
Total Livestock	1,824	3,166	-39	-1.2

SOURCE: Agriculture Canada

TABLE 9

AGGREGATE NET FARM INCOME, EASTERN CANADA

WGTA Baserun and Compensatory Rate Option

(million nominal dollars)

	1983-84 *WGTA* Baserun	1995-96 *WGTA* Baserun	Compensatory Rate Option: 1995-96 Change from 1995-96 Baserun	Compensatory Rate Option: 1995-96 Change from 1995-96 Baserun
	$	$	$	%
Ontario	905.3	1,703.2	-26.6	-1.6
Quebec	600.1	953.2	-9.1	-1.0
Atlantic	136.4	208.0	-3.1	-1.5
Total	1,641.8	2,864.4	-38.8	-1.4

SOURCE: Agriculture Canada

TABLE 10

HOG MARKETINGS BY PROVINCE OF ORIGIN
SELECTED YEARS 1972-1984 (THOUSAND HEAD)

	1972	1976	1978	1980	1982	1984
West:						
B.C.	57.4	66.3	97.3	261.6	324.5	343.4
Alberta	1,878.5	1,101.5	1,222.4	1,674.8	1,528.9	1,691.3
Sask.	1,094.3	536.8	558.8	774.5	607.9	689.8
Manitoba	1,197.3	835.0	894.7	1,250.4	1,228.5	1,239.0
TOTAL WEST	4,227.5	2,539.6	2,773.2	3,961.3	3,689.8	3,963.5
East:						
Ontario	2,927.9	2,562.9	3,052.3	4,210.4	4,251.2	4,036.6
Quebec	1,881.2	2,339.2	3,051.8	4,686.5	4,616.6	4,639.0
Atlantic	320.7	397.9	346.2	473.0	540.6	615.0
TOTAL EAST	5,129.8	5,300.0	6,450.3	9,369.9	9,408.4	9,290.6

SOURCE: Agriculture Canada

TABLE 11

A. PORK EXPORTS, IMPORTS BY REGION CANADA SELECTED YEARS 1972-1983 (TONNES)

	1972	1976	1978	1980	1983
West:					
Imports	2,488	34,576	21,986	4,110	1,983
Exports	35,901	23,035	18,307	24,005	28,196
Net trade Exports - Imports	+33,413	-11,541	-3,679	+19,895	+26,213
East:					
Imports	10,369	48,110	26,138	9,066	10,727
Exports	11,734	30,711	64,067	134,802	174,418
Net trade Exports - Imports	+1,365	-17,399	+37,929	+125,736	+163,691

B. LIVE HOG EXPORTS BY REGION CANADA SELECTED YEARS 1972-1983 (THOUSAND HEAD)

	1972	1976	1978	1980	1983
East	13.8	20.3	63.8	48.3	155.2
West	74.9	24.7	124.2	189.3	304.1

SOURCE: Alberta Agriculture

TABLE 12

HOG PRICES, EDMONTON AND TORONTO,
MEAT FREIGHT RATES EDMONTON TO TORONTO
SELECTED YEARS 1972-1984 INDEX 100 ($/cwt.)

	1972	1976	1978	1980	1982	1984
Hog Prices:						
Toronto	37.39	64.10	69.80	59.08	83.32	72.65
Edmonton	32.01	59.87	67.51	57.22	82.23	68.87
Difference	5.38	4.23	2.29	1.86	1.09	3.78
Meat Freight Rates	3.50	5.16	5.39	6.52	8.51	9.47

SOURCE: Agriculture Canada

TABLE 13

STEERS AND HEIFERS SLAUGHTERED IN FEDERALLY INSPECTED PLANTS, WESTERN AND EASTERN CANADA SELECTED YEARS 1972-1984 (THOUSAND HEAD)

	1972[1]	1976	1978	1980	1982	1984
West	1,437	1,794	1,686	1,471	1,510	1,514
East	709	1,000	966	953	959	809

SOURCE: Agriculture Canada

[1] Steer & Heifer Marketings by Province of Origin

TABLE 14

SLAUGHTER STEER PRICES (A_1A_2) TORONTO AND CALGARY SELECTED YEARS 1972-1984 ($/cwt.)

	1972	1976	1978	1980	1982	1984
Toronto	37.20	41.89	62.07	80.74	80.54	84.96
Calgary	34.95	39.20	57.55	74.59	73.08	75.43
Difference	2.25	2.69	4.52	6.15	7.46	9.53
Meat Freight Rates Calgary Toronto	3.50	5.16	5.39	6.52	8.51	9.47

SOURCE: Agriculture Canada

TABLE 15

SELLING PRICES "IN-STORE" AT PORT

ACTUAL AND PROJECTED 1981-82 TO 1995-96

Part A: Prices for Statutory Grains "In-Store" at Port 1981-82 to 1983-84

Statutory Grains	1981- - 82 % of Prod.	1981- - 82 $ /tonne	1982 - 83 % of Prod.	1982 - 83 $/tonne	1983 - 84 % of Prod.	1983 - 84 $ /tonne
Wheat	56.3	200	57.3	192	62.3	196
Barley	30.1	124	28.0	100	23.2	130
Rapeseed	4.4	325	4.9	307	6.4	439
Oats	6.1	121	6.4	96	5.2	125
Rye	2.0	168	1.8	121	1.8	132
Flaxseed	1.1	352	1.6	296	1.1	362
Average		179		166		193

Part B: Average Prices for Statutory Grain "In-Store" at Port Projected to 1995-96 ($/tonne)

	Actual			Forecast			
	1981-82	1982-83	1983-84	1984-85	1985-86	1990-91	1995-96
Cases Used in This Assessment							
Case A: Projection Assuming a 3% Rate of Inflation							
$ per tonne	179	166	193	199	205	237	275
Case B: Projection Assuming a 5% Rate of Inflation							
$ per tonne	179	166	193	203	213	272	347

Source: Canadian Grain Commission
Canada Grains Council Statistical Handbook

TABLE 16
TRANSPORTATION AND HANDLING COSTS AND STATUTORY GRAINS PAYMENT

Case A: 3% Rate of Increase

	-Pre WGTA-	Post WGTA (1995-96)					
	Actual 1981/82	Alternative 1 Benefits To Railways		Alternative 2 Benefits To Exporters		Alternative 3 Benefits To Marketings *	
Rail Tonnages Shipped	31.5MM "T"	31.5MM "T"	40.5MM "T"	31.5MM "T"	40.5MM "T"	31.5MM "T"	40.5MM "T"
A) Port "In-Store" Price (Current Dollars/Tonne)	179	275		275		275	
-Rail Charge*	5	26	31	47	47	47	47
-Elevation	8	13	11	13	11	13	11
-Trucking	2	4	5	4	5	4	5
	15	43	47	64	63	64	63
=Farm Gate Price	164	232	228	211	212	211	212
+Plus Crow Benefit	-	-	-	21	16	18**	13**
=Net Farm Price	164	232	228	232	228	229	225
B) Proportion of Net Farm Price (Percent)							
Rail Charge	3.0	11.2	13.6	20.2	20.6	20.5	20.9
Elevation	4.9	5.6	4.8	5.6	4.8	5.7	4.9
Trucking	1.2	1.7	2.2	1.7	2.2	1.7	2.2
All Transport & Handling	9.1	18.5	20.6	27.5	27.6	27.9	28.0
Crow Benefit	--	--	--	9.0	7.0	7.9	5.8

* - Rail charges in 1981/82 are based on the "Crow Rates" (Related rail costs are estimated to have been approximately $31/Tonne.)
  - Rail charges in 1995/96 are based on recovering related rail operating costs estimated at approximately $47/Tonne at both volumes.

** Assumes a 15% dilution effect.

Note: - All values are rounded to the nearest dollar.
  - Percentages are approximate due to rounding.

TABLE 17
TRANSPORTATION AND HANDLING COSTS AND STATUTORY GRAINS PAYMENT

Case B: 5% Rate of Increase
Assuming No Safety Net

	-Pre WGTA-	Post WGTA (1995-96)					
	Actual 1981/82	Alternative 1 Benefits To Railways		Alternative 2 Benefits To Exporters		Alternative 3 Benefits To Marketings *	
Rail Tonnages Shipped	31.5MM "T"	31.5MM "T"	40.5MM "T"	31.5MM "T"	40.5MM "T"	31.5MM "T"	40.5MM "T"
A) Port "In-Store" Price (Current Dollars/Tonne)	179	347		347		347	
-Rail Charge*	5	41	46	62	62	62	62
-Elevation	8	16	14	16	14	16	14
-Trucking	2	5	6	5	6	5	6
	15	62	66	83	82	83	82
=Farm Gate Price	164	285	281	264	265	264	265
+Plus Crow Benefit	-	-	-	21	16	17**	13**
=Net Farm Price	164	285	281	285	281	281	278
B) Proportion of Net Farm Price (Percent)							
Rail Charge	3.0	14.3	16.4	21.7	22.1	22.0	22.3
Elevation	4.9	5.6	5.0	5.6	5.0	5.7	5.0
Trucking	1.2	1.8	2.1	1.8	2.1	1.8	2.2
All Transport & Handling	9.1	21.7	23.5	29.1	29.2	29.5	29.5
Crow Benefit	--	--	--	7.4	5.7	6.0	4.7

* - Rail charges in 1981/82 are based on the "Crow Rates" (Related rail costs are estimated to have been approximately $31/Tonne.)
- Rail charges in 1995/96 are based on recovering related rail operating costs estimated at approximately $62/Tonne at both volumes.

** Assumes a 15% dilution effect.

Note: - All values are rounded to the nearest dollar.
- Percentages are approximate due to rounding.

TABLE 18

TRANSPORTATION AND HANDLING COSTS AND STATUTORY GRAINS PAYMENT

Case B: 5% Rate of Increase
Assuming Safety Net for Each Alternative

	-Pre WGTA-	Post WGTA (1995-96)					
	Actual 1981/82	Alternative 1 Benefits To Railways		Alternative 2 Benefits To Exporters		Alternative 3 Benefits To Marketings *	
Rail Tonnages Shipped	31.5MM "T"	31.5MM "T"	40.5MM "T"	31.5MM "T"	40.5MM "T"	31.5MM "T"	40.5MM "T"
A) Port "In-Store" Price (Current Dollars/Tonne)	179	347		347		347	
-Rail Charge*	5	35	35	35	35	35	35
-Elevation	8	16	14	16	14	16	14
-Trucking	2	5	6	5	6	5	6
	15	56	55	56	55	56	55
=Farm Gate Price	164	291	292	331	332	331	332
+Plus Crow Benefit	-	-	-	21	16	17**	13**
=Net Farm Price	164	291	292	352	348	348	345
B) Proportion of Net Farm Price (Percent)							
Rail Charge	3.0	12.0	12.0	9.9	10.1	10.1	10.1
Elevation	4.9	5.5	4.8	4.5	4.0	4.6	4.1
Trucking	1.2	1.7	2.0	1.4	1.7	1.4	1.7
All Transport & Handling	9.1	19.2	18.8	15.9	15.8	16.1	15.9
Crow Benefit	--	--	--	6.0	4.5	4.9	3.8

* - Total rail costs per tonne are estimated to be \$31/tonnes in 1981/82 plus \$62/tonnes in 1995/96 at both volumes.

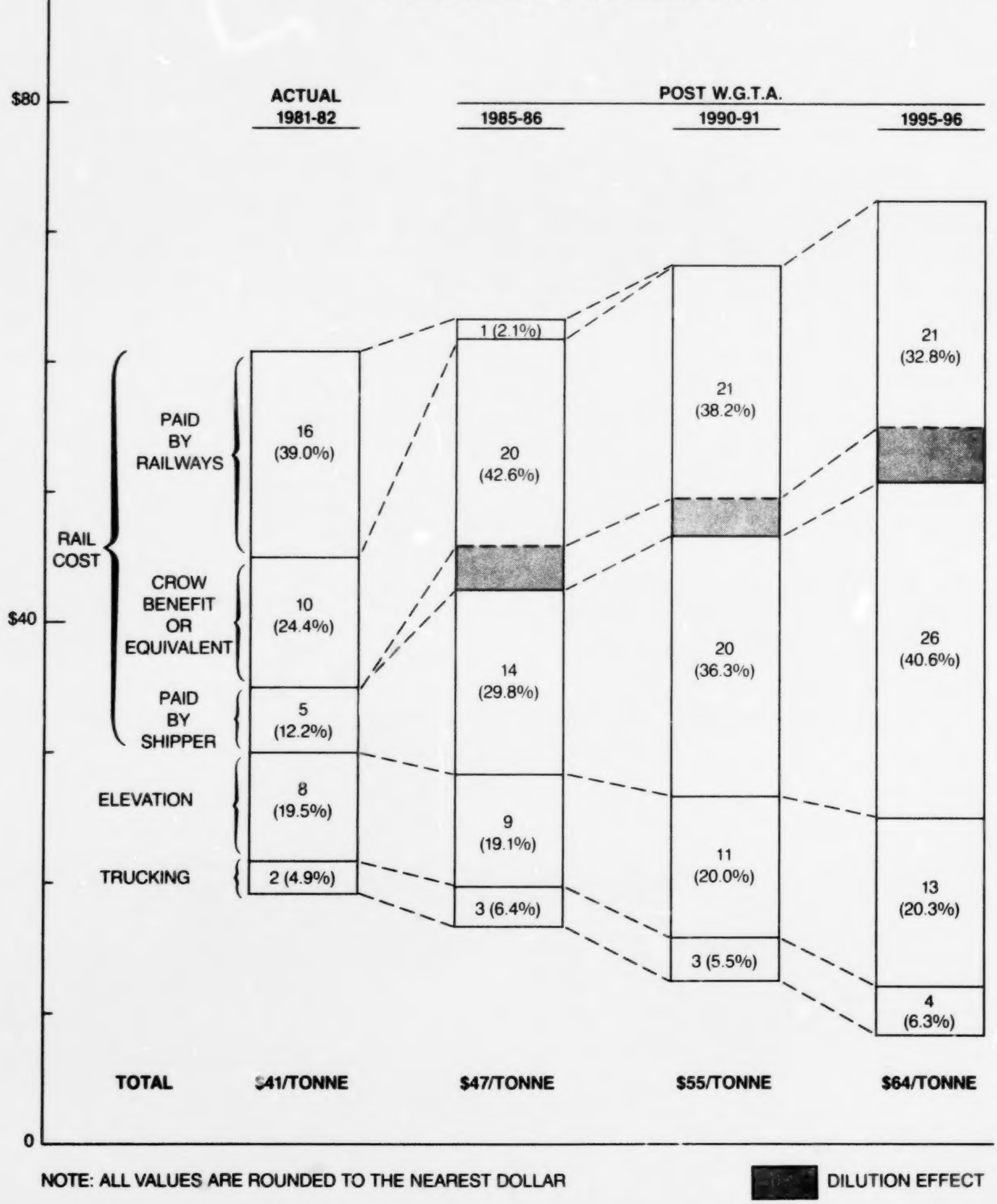
** Assumes a 15% dilution effect.

Note: - All values are rounded to the nearest dollar.
- Percentages are approximate due to rounding.

FIGURE 1

THE IMPORTANCE OF THE CROW BENEFIT IN EX FARM GATE TRANSPORT AND GRAIN HANDLING COST FOR EXPORT GRAIN.

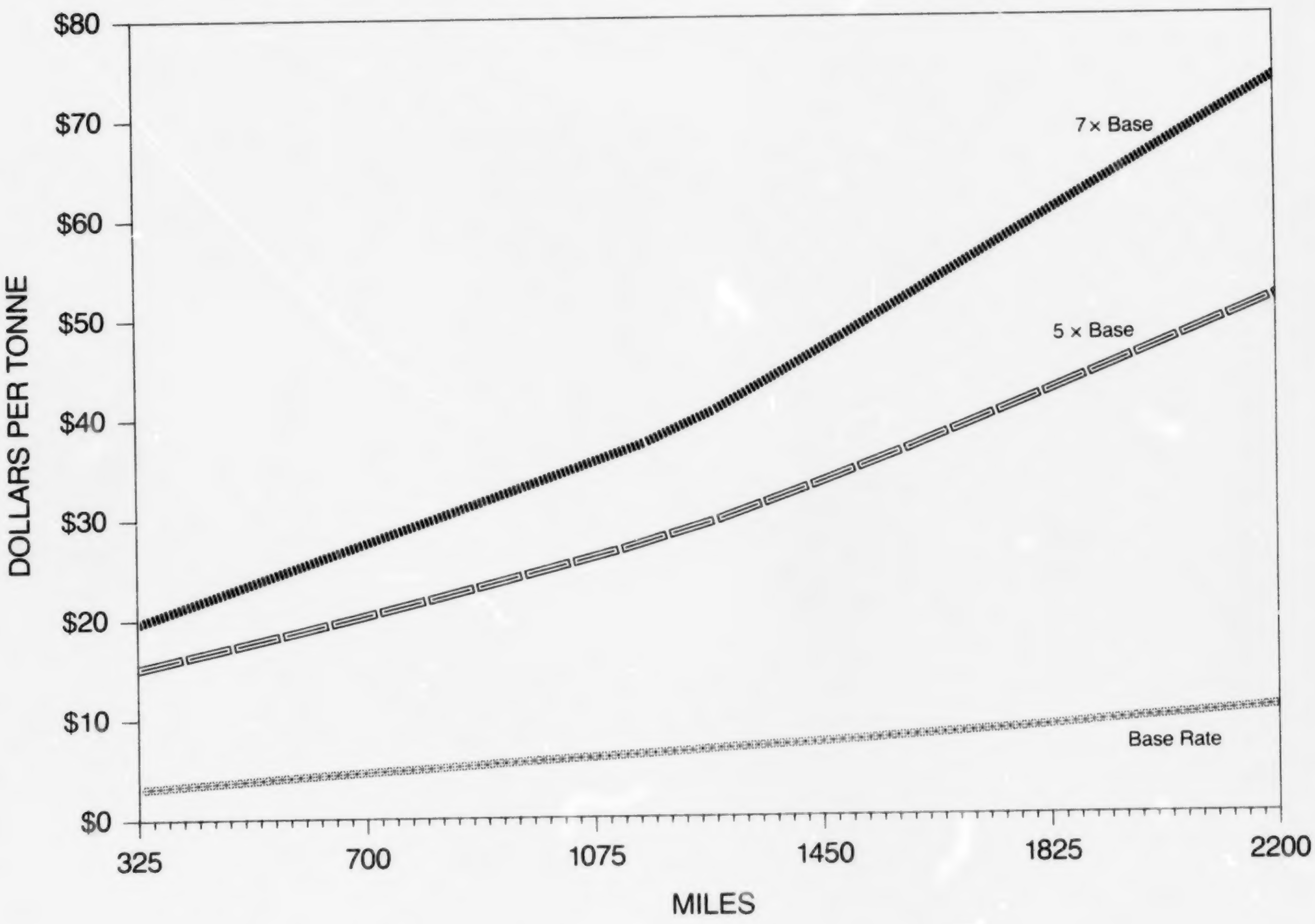
ASSUMING : A 3% ANNUAL INFLATION RATE.
: ANNUAL SHIPMENTS OF 31.5 MILLION TONNES.



NOTE: ALL VALUES ARE ROUNDED TO THE NEAREST DOLLAR

FIGURE 2

The Freight Rate for Various Distances under the WGTA, at 5 Times and 7 Times the Base Rate



Source: Rosaasen and Schmitz, *op. cit.*

APPENDIX 5

NET GRAIN SALES - A METHOD OF PAYMENT

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1. INTRODUCTION

Proposals for paying the monies committed by the Government of Canada in the Western Grain Transportation Act (WGTA) have identified the direct recipients to be either the railways or farmers. The system set forth in this paper distributes the funds to farmers on the basis of net grain and oilseed sales. The net grain sold equals the difference between the total tonnage of grain and oilseeds sold and the amount of grain purchased. For most farmers the net grain sales are positive because more grain is sold than purchased. Whenever purchases exceed sales, the farmer would not be eligible to receive any of the funds established under the WGTA.

This Appendix begins with how the annual total funds are established under WGTA, proceeds to identify how a net sales credit system would operate, reviews the criteria identified to evaluate methods of payment, and finally, discusses the economic implications of this system in terms of the criteria.

2. THE WESTERN GRAIN TRANSPORTATION ACT

The Western Grain Transportation Act was passed by the House of Commons in November, 1983. The Act was instrumental in revising the statutory freight rates for shipping export grain from the prairie provinces. The WGTA established public institutions to administer the transportation, handling and shipping of grain, revised the rate structure for shipping export grain, defined the conditions and amounts of money contributed by the Government of Canada, built in an automatic review of the Act and established a committee to examine all matters which pertain to the method of payment of government funds in support of grain transportation.

Whereas the WGTA encompassed all the aforementioned components, it essentially revised the statutory rates and committed monies to individuals deemed to suffer a financial loss because of the higher tariffs for shipping grain. Parliament did not have to legally include the compensation component in the Act. To evaluate how effectively the monies are spent requires the precondition that the statutory rates actually changed. The starting point to evaluate any method of payment must occur after the freight rate revision not prior to the change. The question of paying the monies only arises after a financial loss is deemed to occur because of a change in legislation. Besides compensating individuals who are likely to lose financially, the government also sought to pay the monies in a manner which would increase agricultural development and would have minimal influence upon production and marketings decisions made by farmers.

The WGTA commits the Government of Canada to contribute funds through payment of the legally defined "Crow Benefit", a share future increases in transportation costs, and a guarantee that the freight rates will not exceed a predetermined share of the price of grain. Payment of the "Crow Benefit" is phased in and is $599.6 million in 1984/85, $629.1 million in 1985/86, and $658.6 million in all subsequent years. The share of future increases in annual transportation costs contributed by government depends upon inflation of railway costs and the amount of the increase paid by shippers. These absolute amounts are not predetermined in the WGTA but the formulae are defined. Likewise, the relative relationship between future grain prices and freight rates is also unknown and the Government of Canada cannot predict future financial obligations. Table A5.1 sets out a hypothetical tabulation of the funds which could be contributed by the Government of Canada in any given year. The total sum shown, $700 million, is provided to illustrate how the net sales credit would be calculated, not as an indicator of specific future financial obligations.

TABLE A5.1

AN EXAMPLE OF FEDERAL MONIES UNDER WGTA FOR A YEAR PRIOR TO 1990

Monies Contributed by the Government of Canada	
Item	Amount ($ million)
Crow Benefit	$658
Inflation Share of Cost	32(a)
Shipper Share Limitation (Safety Net)	10(b)
TOTAL	$700

(a) The monies shown for the inflation share assumes the average inflation contributed by government is 3 percentage points above the share paid by shippers.

(b) The probability that grain prices will fall below the support level is unknown. An average value of $10 million was assumed for illustrative purposes.

3. NET SALES CREDIT

a. Payments to Grain Market Participants

Linking compensation to a market transaction involves choosing either the buyer or seller to be the recipient. Theoretically, the outcome would be identical if all grain buyers were competitive and raised their offer prices by an amount equal to the payment received from the government. Figure A5.1 shows the theoretical outcome of a seller or buyer payment is similar. Grain sales increase in relationship to the price elasticity of supply.

The theoretical similarities diverge if grain buyers do not pass on all the payment in terms of higher grain prices. Similarly, when direct payments are made to railways to reduce the freight rate, the cost savings to the grain buyer may not be passed on to the farmer. Lower freight rates may not be reflected totally in higher grain prices because the grain buyers do not have to offer higher prices. Local grain and oilseed processors and livestock producers should qualify for the payment as well as grain dealers. A payment reducing the cost to crushers or feed mills could be viewed as inappropriate by international competitors. This could invite reprisals from other nations. A payment directly to livestock producers in western Canada may also be seen as benefiting the livestock industry rather than raising the price of feed grains. Because of these problems a payment to the grain and oilseed buyers is not recommended if the sellers can be compensated directly.

Unless some sellers are deemed to be unworthy of compensation, payments should not discriminate on the basis of buyer, seller or the end use of the product. Discriminatory payments interfere with market prices. All grain sold by eligible farmers must qualify for the payment. The seller must be indifferent as to who buys the grain and vice versa. The decision to sell to a grain dealer purchasing feed grain for resale in other regions in Canada or to a farmer buying feed grain in the prairies should be based upon the conditions of sale, not the compensatory payment. In most circumstances the feed grain buyers would have to offer comparable prices. Where compensation is linked to a sale rather than to the mode of transportation, the feed grain user, seed grain buyer or oilseed processor in the prairies competes on an equal basis with companies buying grain and moving it out of the region. This is not the case when compensation is tied to rail movement.

The effect of payments lowering the cost of shipping grain out of the prairies results in all buyers matching the export buyer's price. Given comparable delivery opportunities, grain used within the prairies is priced at the same level as exports. All sellers receive higher grain prices in the prairies even though a railway payment applies to merely a portion of the grain sold. A transportation related payment raises grain revenues in excess of the level of monies transferred to the railways. A payment lowering railway tariffs causes a larger increase in revenues to all grain sellers because all buyers must compete with export buyers who are able to take advantage of the lower transportation costs. The added revenues to grain sellers equal the payments from government to the railways, plus the revenues added because prairie users pay more. Prairie grain revenues are increased by an amount equal to direct payments to the railways plus an indirect tax on grain and oilseed users within the prairies. Switching the government monies to all grain sales maintains the government source of supporting grain revenues but eliminates the indirect tax on prairie feed grain and oilseed users.

b. Qualifying Grains and Oilseeds

A net sales credit on qualifying grains and oilseeds discriminates against the crops not eligible for payment. Given that the current list of qualifying crops in the WGTA is very extensive with respect to grains, oilseeds and pulse crops, the major crop excluded is forages. Because the eligible crops are entitled to a net sales credit and forages are not, there is an explicit incentive to produce the qualifying crops. The list of grains and crops eligible for the net sales credit would differ significantly from the list appearing in Schedule I of the WGTA because only grains and oilseeds in their natural state qualify for a credit. Following is a suggested list of eligible grains and oilseeds:

Barley
Beans (except soybeans) including faba beans and splits
Buckwheat
Canary Seed
Corn, Cracked
Corn (not popcorn)
Flax Seed
Groats
Lentils, including splits
Mustard Seed
Oats
Peas, including splits
Rapeseed or Canola
Rye
Sunflower Seed
Triticale
Wheat

Dockage, in terms of screenings, does not qualify for payment. In the case of sales where buyers do not account for dockage (farm to farm and farm to feed mills), a standard assumed level of dockage should apply. For example, if half a percent of all wheat is normally dockage, then this factor will be applied to all sales not recording dockage.

Grains qualifying for a net sales credit must be in their natural form. In addition to a debit being registered for grain and oilseeds purchased in their natural form, processed feeds should be debited in proportion to their feed grain content. For example, a hog ration which contains 60 percent barley would debit the account by 6 tonnes for every 10 tonnes purchased. The need to include the feed grain component of prepared feeds arises because farmers could deliver feed grains to mills, receive a credit and return home with prepared feeds. The decision to sell food grains, feed grains, oilseeds and buy prepared feeds could, in part, be influenced by the net sales credit. Additional grain trucking and processing would be an outcome of government policy wherein the incentives were not based upon market conditions. To maintain neutrality, the feed grain constituents of the prepared feeds should be debited against a farmer's net sales credit account.

Linking compensation to grain sales introduces an opportunity cost of using the grain on the farm. A credit is not obtained unless a sale of grain or oilseeds takes place. Farmers also will not be compensated if grain purchases exceed sales. This system of compensation may encourage greater on-farm specialization of crop and livestock production.

Some cattle and grain farms grow feed grains on marginal lands. These soils often are suited to forage production. Lowering the cost of acquiring feed grains may be sufficient incentive to seed these lands back to forage and buy feed grains. However, if the mixed farm also grows cereal grains on better quality land and sells a major portion of this production, then the advantage of producing more forage may not be present. The reason for this is that feed grain purchases would reduce the total net sales credit.

Mixed farms which currently sell wheat and oilseeds and purchase feed grains are likely to continue doing so under a system of a net sales credit. Currently for these farms it must be more profitable to produce wheat and oilseeds than feed grains. A net sales credit system should reduce feed grain prices by the increase in rail freight rates. However, the drop in feed grain prices will be counterbalanced by a comparable debit against the net sales credits. Because a debit for purchasing feed grains will offset any credit obtained from selling wheat, oilseeds, and pulse crops, consideration may be given to allowing the feed grain purchase to reduce only the credits for grains which could have been fed on the farm. In this case the sales credits gained from selling buckwheat, canola, canary seed, flax, mustard, and sunflowers could not be reduced by any feed grain purchases. Purchase of the aforementioned non feed crops would of course be debits against any credits established by sales of these crops. Furthermore, any credits established by selling barley, beans, corn, lentils, peas, rye, triticale, and wheat would be offset by debits if any of these grains or pulse crops are purchased by the farm. These special debit and credit provisions have not been included in the discussion on the accounting procedures. Therefore, the financial implications for the mixed farming operations which sell food grains and buy feed grains should be no different than under the current method of payment wherein the railways reduce the grain freight rates in exchange for federal monies.

Another possible outcome due to a net sales credit could be the business reorganization of the farm. In this case, the livestock enterprise would be incorporated as a separate entity and would qualify as a legitimate agent to purchase feed grain. Grain sold to the livestock company would qualify for a net sales credit. Whereas this may be the best alternative for some farms, the incorporation approach requires the farm to give up some of the advantages of sole proprietorship. Benefits in addition to the net sales credit would have to be derived from incorporation before many farms would organize separate business entities for the livestock and cropping activities.

A net sales credit is not neutral with respect to decisions affecting a mixed farming business. Crop selection decisions by farmers producing only cereal grains and oilseeds or producing only livestock would not be influenced by a payment based upon sales. How mixed farming operations would adjust to a payment based upon sales would depend upon the cost advantage of buying feed grains rather than producing them, or the economic implications of restructuring the business organization.

c. Qualifying Sellers and Buyers

All farmers or farming corporations qualifying as "Actual Producers" under Section 19 of the Canadian Wheat Board Act would be eligible for a net grain sales credit. However, the permit book system should not be legislated into identifying producers for this purpose. Each farmer, or farming corporation, would apply for a net sales credit card to be used in recording all grain transactions. The net sales credit card would identify each seller in terms of an identifying number. The card would not be the same as the identification plate issued by the CWB but the net sales credit number could reflect permit book number, location of the farm and other characteristics useful in determining the payout.

Grain buyers would have to register as a qualifying organization with the agency administering the disbursement of funds. Each buyer and agent of the company would have a unique identification which would be recorded on a grain transaction. Grain buyers would be classified into dealers, other agents and eligible farmers. Dealers buy and sell grain while other buyers would generally be end users. Buyers would have the option of manually, or electronically recording a transaction with a credit card. The choice would depend upon the frequency of transactions and the cost of each system. No incentive exists for registered grain dealers or other agents to record grain sales to qualifying farmers. In the case of grain dealers, the condition to become a certified dealer and register purchases from farmers should also oblige the organization to record and submit all grain sales to qualifying farmers. Therefore, the credit card form must be versatile enough to account for sales and purchases by farmers. By their nature, most of the entities which fall into the other agency category would not be selling grain. They are users of grain, not dealers. Therefore, a year-end statement of transactions which itemized the grain purchases submitted by the other agency-type business would also contain a statement indicating that all grain sales, if any, should also be recorded. This would allow them to record any sales prior to returning the form to the administrative agency. These institutions may require an incentive payment for timely compliance with the administrative agency. Whereas a farmer would prefer not to record a purchase of grain from another farmer, unless a verifying credit slip is filled out, the seller does not receive credit. Therefore, an incentive for compliance exists.

In all cases, whether the business entity is a grain dealer, qualifying farmer or other agency, the information required by an organization administering this program is not new. Every business must have documentation on grain sales and purchases for income tax records. The new requirement is that this information must be reported at the time of the transaction to another agency if net credits are to be recorded and compensation made on this basis. The added administrative costs for the grain dealers would have to be recovered eventually through service charges to farmers or higher margins. Eligible farmers would have increased paper work but they would be benefiting from the program. However, a record of all sales and purchases would reduce the organization time whenever tax records had to be assembled.

It should be noted that much of the sales information is already transmitted by grain buyers to the Western Grain Stabilization Administration (WGSA).

d. Accounting Procedures

A record of every transaction would be filed for the seller, buyer and central administrative agency. The current grain tickets could be modified to allow for use of a credit card and provide one additional copy for the administrative agency, if the transaction was not recorded electronically. Besides identifying the buyer and seller, the receipt would also have information on the date, product, grade, quantity sold and price. Price is not required by the central agency but it would be useful information if the transaction had to be validated with other accounting records.

Following each crop year, an administrative agency would prepare a statement on the grain sales and purchases for each qualifying farmer. An example of a statement summarizing grain transactions appears in Table A5.2. A farmer (A1) is identified to sell wheat, canola, flax and barley. Three types of buyers must be identified. They include: registered grain companies, other farmers and other agents. Registered grain companies could be restricted to licenced dealers or broadened to include entities designated by the Western Grain Stabilization Act. The second group must account for any farm-to-farm sales. The last group would include livestock farms which do not sell grain, or agencies purchasing grain directly from farmers for industrial use. The responsibility of registering the sale would rest with the buyer because they would be able to file all the transactions with the administrative agency at all times. If they did not register the sale, the seller would not receive credit for a payment from the WGTA fund.

The right hand side of the statement contains all grain and oilseed purchases made by the farmer. This would generally be grain required for seed and livestock feed. Whereas a grain sale entitles the farmer to a net sales credit, a purchase reduces the amount received and in effect is a debit. In Table A5.2, the same entities, namely grain dealers, farmers and other agencies, appear with respect to grain purchases. A record of purchases is required for each farm because this would provide an incentive to increase sales if purchases were not recorded. Without noting purchases, a farmer could sell grain to a grain dealer, buy it back and resell it again. Only the sales would be recorded. When purchases are recorded, the incentive to sell, buy and resell is removed.

The grains and oilseeds qualifying for a net sales credit include the difference between total sales and purchases. Net sales are computed on the basis of all grains. For example, in Table A5.2, total wheat sales shown equal 400 tonnes; barley, 180 tonnes; flax, 50 tonnes; and canola, 90 tonnes. Purchases of wheat, canola and flax were 10, 3, and 2 tonnes, respectively. Total grain qualifying for credit in the crop year is 705 tonnes (720 minus 15 tonnes).

TABLE A5.2

GRAIN AND OILSEED STATEMENT OF SALES AND PURCHASES FOR FARMER #A1 (AUGUST 1, 198X - JULY 31, 198Y)

Sales to					Purchases from				
Registered Grain Company (tonnes)					Registered Grain Company (tonnes)				
Crop	Date	Qty.	Dealer	Total	Crop	Date	Qty.	Dealer	Total
Wheat	7/8	12	XYZ		Wheat	3/30	10	XYZ	
•		•			•				
•		•			•				
Wheat				400	Wheat				10
Canola	8/25	9	XYZ		Canola	4/03	3	XYZ	
•		•			•				
•		•			•				
Canola				90	Canola				3
Flax	9/30	10	XYZ		Flax	4/10	2	XYZ	
•		•			•				
•		•			•				
Flax				50	Flax				2
Barley	7/10	8	XYZ						
				40					
Other farmers					Other farmers				
Crop	Date	Qty.	#	Total					
Barley	10/10	8	B2						
•		•							
•		•							
Barley				60					
Other Agents					Other Agents				
Crop	Date	Qty.	Name	Total					
Barley	9/30	12	QGAIN Co.						
•		•							
•		•							
Barley 1				80					
Grand Total				720					15
Net Grain Sales				705 tonnes					

Table A5.3 shows another statement of grain sales and purchases for a different farmer. In this case, the farmer produced wheat and barley, sold both crops but purchased more barley than was sold. Farmer B2 sold grain to a dealer, purchased barley from a grain dealer and another farmer. In this situation, the farmer would probably sell some barley because the quality was higher than that required as livestock feed. In turn, the farmer would purchase lower quality barley for feed. Table A5.3 shows total purchases of 110 tonnes reduced total sales credits of 270 tonnes to a net sales credit of 160 tonnes. Since grain purchases reduce the amounts of money received from the Government of Canada, eligible farmers should be required to sign a declaration that the purchase and receipts, as identified within the summary statement, constitute all transactions.

Besides having an account for every eligible farmer, the central agency will have a corresponding record for every grain dealer and other agent. An example of a grain company (XYZ) dealing with farmers A1 and B2 is presented in Table A5.4. Sales of grain to farmers are recorded on the right-hand side. The limited purchases by farmer A1 indicate the grains were probably for seed. These same sales appear as purchases in the statement for farmer A1 in Table A5.2. Therefore, a corresponding entry exists for each sale or purchase recorded by a grain dealer within the statement of the farmer. In the case of farmer B2, the 50 tonnes of barley purchased from Grain Company XYZ appears in both statements (Table A5.4 and Table A5.3). Purchases by Grain Company XYZ are recorded in Table A5.4 for each farmer dealing with the dealer. These amounts, in turn, appear within the statements of the respective farmers (Table A5.2 and A5.3).

TABLE A5.3

GRAIN AND OILSEED STATEMENT OF SALES AND PURCHASES FOR FARMER #B2 (AUGUST 1, 198X - JULY 31, 198Y)

Sales to					Purchases from				
Registered Grain Company (tonnes)					Registered Grain Company (tonnes)				
Crop	Date	Qty.	Dealer	Total	Crop	Date	Qty.	Dealer	Total
Wheat	7/12	10	XYZ		Barley	12/20	8	XYZ	
•		•			•		•		
•		•			•		•		
•		•			•		•		
					Barley				50
Wheat				200					
Barley	10/10	8	XYZ						
•		•							
•		•							
Barley				70					
Other farmers					Other farmers				
Crop	Date	Qty.	#	Total	Crop	Date	Qty.	Dealer	Total
					Barley	10/10	8	A1	
					•		•		
					•		•		
					•		•		
					Barley				60
Other Agents					Other Agents				
Crop	Date	Qty.	Name	Total	Crop	Date	Qty.	Dealer	Total
Grand Total				270	Total Purchases All Grain				110
Net Grain Sales				160					

TABLE A5.4

GRAIN AND OILSEED STATEMENT OF PURCHASES FROM AND SALES TO PERMIT HOLDERS BY GRAIN COMPANY XYZ (AUGUST 1, 198X - JULY 31, 198Y)

Sales to					Purchases from				
Farmer#	Date	Crop	Qty.	Total	Farmer#	Date	Crop	Qty.	Total
			(tonnes)					(tonnes)	
A1	03/30	Wheat	10	10	A1	07/08	Wheat	12	
A1	04/03	Canola	3	3	A1	07/30	Wheat	12	
					.		.		
A1	04/10	Flax	2	2	.		.		
					.		.		
					A1		Wheat		400
B2	12/30	Barley	8						
					A1	08/25	Canola	9	
B2	01/25	Barley	9		.		.		
					.		.		
		A1		Canola		90			
B2	04/30	Barley	9						
					A1	09/30	Flax	10	
B2	04/30	Barley	8		.		.		
					.		.		
B2	05/15	Barley	7		.		.		
					A1		Flax		50
B2	06/10	Barley	9						
					A1	07/10	Barley	8	
		Barley		50	.		.		
					.		.		
					.		.		
					A1		Barley		40
					B2	07/12	Wheat	10	
					.		.		
					.		.		
					.		.		
					B2		Wheat		200
					B2	10/10	Barley	8	
					.		.		
					.		.		
					.		.		
					B2		Barley		70

A statement of an agency buying grain appears in Table A5.5. In this example, QGain Company bought 80 tonnes of barley from farmer A1. The other side of the transaction appears in the statement of farmer A1 in Table A5.2. Similarly a transaction between eligible farmers is recorded as a sale in the seller's statement and a purchase in the buyer's statement. This is the case for 60 tonnes of barley sold by farmer A1 (Table A5.2) to farmer B1 (Table A5.3). Therefore, at the year end, the administrative agency can verify whether total grain sales and receipts balance.

Table A5.6 is a year end statement summarizing all eligible transactions. If the total participants in the grain and oilseed market were farmers A1 and B2, grain dealer XYZ Co. and the end user QGAIN, the total qualifying sales and purchases would equal 1055 tonnes. Total sales must equal total qualifying purchases. Most of the qualifying grain was sold by the farmers (990 tonnes) and most of the purchases were by grain dealers and end users (930). The year end statement for all qualifying transactions must balance.

e. Determination and Disbursement of Net Sales Credit

Adding the net grain sales occurring throughout a crop year for every eligible farmer results in a total quantity of grain qualifying for the government payments identified in the WGTA. The total grain qualifying would include sales to the other countries, provinces in eastern Canada and British Columbia, sales to the milling, distilling and related food industries in western Canada, sales to livestock producers and to other farmers as seed grain. Grain not sold but utilized on farm as livestock feed or seed would not qualify. Furthermore, all grain purchased by eligible farmers would reduce their net sales credit. Therefore, the aggregate net sales of grains and oilseeds represent the total net grain sold by prairie farmers to other sectors in the economy. Assuming net sales equalled 35 million tonnes and $700 million dollars was available for disbursement, then the average net sales credit would be $20/tonne.

TABLE A5.5

GRAIN AND OILSEED STATEMENT OF PURCHASES SALES BY QGAIN COMPANY TO PERMIT HOLDERS (AUGUST 1, 198X - JULY 31, 198Y)

	Farmer #	Date	Crop	Quantity	Total
				(tonnes)	
Sales to					
Purchases from	A1	09/30	Barley	12	
	.		.		
	.		.		
	.		.		
	A1		Barley		80

TABLE A5.6

STATEMENT OF ALL GRAIN AND OILSEED TRANSACTIONS (TONNES)
(AUGUST 1, 198X - JULY 31, 198Y)

Sales			Purchases		
Farmers	Crop	Quantity	Farmer	Crop	Quantity
		(tonnes)			(tonnes)
#A1	Wheat	400	A1	Wheat	10
	Canola	90		Canola	3
	Flax	50		Flax	2
	Barley	180			
#B2	Wheat	200	B2	Barley	110
	Barley	70			
Grain Dealers			Grain Dealers		
XYZ Co.	Wheat	10	XYZ Co.	Wheat	600
	Canola	3		Canola	90
	Flax	2		Flax	50
	Barley	50		Barley	110
Other Agents			Other Agents		
QGAIN			QGAIN	Barley	80
Total		1055			1055

i) Value of Net Sales Credit to Reflect Statutory Rate Differentials

The average net sales credit must be defined for a freight rate zone set out in schedule II in the WGTA. A suggested base level would be $5.00/tonne for a distance of 951-975 miles. This area would receive the preliminary estimate of the average net sales credit. An area in the 500 mile rate zone with a base scale rate of $3.57/tonne would receive 71.4 percent of the average net sales credit. Similarly, an area in the 1,251-1,275 mile rate zone with a base scale of $6.08 would receive 121.6 percent of the average. For example, if the average projected net sale credit was $20.00/tonne, then farmers in the lower rate area would receive a credit worth $14.28/tonne, while farmers in the higher rate zone would receive $24.32/tonne credit. A preliminary base level of $5.00/tonne would be used to distribute the first payments of the sales credit. The true base level will have to be revised for final payments to reflect the areas where the net grain sales are recorded. If most of the net sales credits are in regions with a higher base rate scale, the base level will increase above $5.00/tonne, and conversely, if more net sales credits are recorded in a lower freight rate zone, the base level will decline.

ii) Payment of Net Sales Credit

The average net sales credit for a crop year is not known until all sales are recorded and the monies contributed by the federal government are known. An estimate of both net grain sales and payments under the WGTA are required prior to the crop year if any monies are to be disbursed throughout the crop year. Because the true average net grain sales credit cannot be established until after the crop year ends, each eligible seller should receive two installments on the net sales credit.

The first payment should be within three months of a transaction. These payments could be made quarterly following the beginning of the crop year in August, i.e., in the months of November, February, May, August and the last payment in December. The level of the first payment in relationship to the total net sales credit should reflect the precision with which the actual net sales credit can be forecast. Uncertainties prior to the crop year include both crop production and the sales during the ensuing year. Initially setting the first installment at 75 percent of the expected value of a net sales credit should allow for most unanticipated events. Over time, as experience is gained, the level of the first installment should be increased.

In Table A5.7, a first installment of $15/tonne is made on all sales recorded throughout the crop year. In the example, this amounted to $10,575. Once the completed statement of grain and oilseed sales and purchases (Table A5.2) for the farmer and average net grain sales credits are known, then each final payment is determined. In the example in Table A5.7, this equalled $3,525 ($14,100 minus $10,575).

f. Compliance

Individual overpayments for a crop year could occur because the record of grain purchases by the farmer was delayed until the last quarter and the debits exceeded the credits in the last quarter plus the final installment. The extreme magnitude and timing of such transactions are not likely to occur very frequently. In cases in which overpayments occur, the deficit should be carried into the subsequent crop year.

TABLE A5.7

STATEMENT OF NET SALES CREDITS AND FINAL PAYMENTS
FARMER "A1", AUGUST 1,198X TO JULY 31, 198Y

Item	Quantity	Credit	Total Net Sales Credit
	(tonnes)	($/tonne)	($)
Total Sales	720		
Total Purchases	15		
Net Grain Sales	705	20	14,100

	First Payment of Net Sales Credit			
Crop	Quantity	Date	Dealer	First Installment
	(tonnes)			($)
Wheat	12	07/08/Yr		180
Wheat	11	12/11/Yr		165
.	.			.
.	.			.
.	.			.
Wheat	12	30/07/Yr		180
Barley	8	07/10/Yr		120
.	.			.
.	.			.
.	.			.
Barley	9	04/06/Yr		135
Canola	10	08/25/Yr		150
Canola	8	04/07/Yr		120
Flax	10	09/30/Yr		150
Total First Installments				10,575
Final Payment for Net Sales Credit				3,525
Net Sales Credit (total)				14,100

Fraudulent overstatement of grain sales or failure to record grain purchases will result in overpayments to individuals. Grain purchases by farms may not be recorded if a grain dealer or other agent fails to report the sale to the central accounting authority. Farmers intending to mislead the agency will not identify the purchase. The possibility of collusion between a farmer and a grain dealer or other agency exists whereby sales to the firm are recorded but a resale back to the farmer is not. The same grain could be recycled many times and a net sales credit recorded each time. Tax records for the farm or grain dealer should show all transactions because the eligible farmer would overstate taxable income if the purchases were not recorded. A farmer is not likely to omit an expense associated with acquiring grain knowing the central accounting agency could legally obtain records.

Overstating the amount of grain sold is most likely to occur in less than arms length transactions. A farmer selling grain to a livestock operation of which he is the principal owner provides the opportunity to exaggerate the sale. For example, the quantity sold could be overstated by twenty percent and the price paid dropped by twenty percent. The paper transaction would show the same dollar value as if the quantity sold were not padded. Detection would be difficult as long as the overstatements were modest. It would be difficult to prove the farmer did not consistently receive crop yields which exceeded his neighbours but required more feed to finish the livestock. Automatic checks could be used to detect flagrant cases. However, if discrete overstatements are suspected, then all less than arms length sales for the farmer will have to be verified by weigh bills certified by designated agents. This potential increase in cost may be a sufficient deterrent.

The first avenue of enforcement should be to instruct the farmer to explain the unusual record of sales and purchases. If this proves to be unsatisfactory, then audited financial records covering the crop years in question should be requested. During the investigation, no further payments on the ongoing net sales credits should be processed. All funds would be frozen until the information on past activities was verified. Lastly, if the farmer continued to ignore all requests to verify the sales records, then the central agency should proceed to acquire the tax records to identify any fraudulent practices.

Penalties for defrauding the central accounting agency should be monetary rather than in the form of a suspension. A suspension of one business will only lead to the creation of another with the same principal owner. The penalty should reflect the costs incurred to prove fraud in addition to a deterrent sufficient to discourage others. A penalty equal to three times the overpayment may be sufficient to meet both needs.

g. Confidential Files

To protect the privacy of farmers, grain dealers and other buyers, no individual records will be provided except upon the order of the court. Furthermore, information released by the central agency should reflect a sufficient number of farmers, grain dealers or other agents to obscure individual firm identification.

h. Administrative Costs

The major functions of the administrative agency are to record transactions, disburse funds and oversee compliance with the Act. The technology of recording transactions through credit card receipts allows the central agency to electronically automate record keeping.

Electronically filed records require minimal clerical time. The transaction is recorded on a memory disc in the cash register as well as on paper. At the end of the day or week the information on the memory disc is then transfered via dedicated telephone linkage to data processing centres in the head offices of grain companies and agencies administering the net sales credit. Currently, most of the transactions filed under the Western Grain Stabilization Act are processed in this manner.

When buyers do not have sufficient volume to justify electronic record keeping they will process the credit receipt and mail a copy to the central administrative agency. Most credit card transactions are mechanically recorded and filed by a clerk on a computer. Because of the additional labor and mailing costs the mechanical processing is more costly than electronic filing. Where service charges are levied by credit card firms to recover these recording costs and mailing charges, the fee varies between $0.25 and $0.50 per transaction or $1.50/month.

Assuming the number of eligible sellers to be 150,000 farmers and the number of transactions to range between four and five million, then an estimate of an amount between $1.25 million and $3.0 million would be the cost of mechanical recording, clerical filing and mailing of the net sales credit. If 80 percent of the records were electronically filed the annual costs estimated by the Western Grain Stabilization Administration would be $800,000 for the recording, mailing and surveillance activities.

i. Transportation Rate Structure

Freight rates set under the WGTA are based upon grain shippers paying:

(i) the "Crow Rate" on shipments up to 31.5 million tonnes, plus a portion of cost increases due to inflation, and

(ii) the total cost of grain shipments over 31.5 million tonnes.

Because the volume of grain handled influences the freight rate structure, a rate must be estimated for each crop year on the expected volume of grain shipped. Estimates invariably are incorrect. Forecast errors result in revenue shortfalls. Subsequent rates must account for the errors. The crop year to crop year variation in rates is due to inflationary events, past errors in forecasting volume, and current guesses on expected shipments. Freight rates under a net grain sales credit approach are much easier to determine and explain to grain shippers. Under a net sales credit, the procedure used to determine the rate for shipping grain in excess of 31.5 million tonnes is followed for all grain shipped. The rate structure would apply to all grain and grain products identified in Schedule II of the WGTA.

j. Government Payments

The total funds contributed by the Government of Canada will be determined for each crop year and distributed to all eligible sellers through four installments plus a final payment. Procedures for determining the monies contributed to offset rising transportation rates will remain unchanged regardless of the size of the government payment. The ratios between freight rate and price of grain at the point of export will have to be revised upwards to reflect the higher transportation costs being paid by producers before receipt of the payment. Currently the WGTA states that the shipper share limitations (the ratio between freight rates and the price of grain) for 1985, 1986, 1987, and 1988 are 5, 8, 9, and 10 percent, respectively.

The effect of producers paying the full transportation rates would be an increase in the freight rate-price ratios. Under the net sales credit system it is estimated that a freight rate-price ratio equivalent to 20 percent would be required to give producers the same level of protection.

Grain prices in the shipper's share formula are currently determined within a calendar year in the WGTA. A recommended change would be to determine the grain prices on a crop year basis. Total funds which the federal government would be obliged to contribute would be known shortly after the start of the next crop year and disbursed to sellers in the quarterly and final payments on the net grain sales audit. Thus producers would receive more immediate relief when the safety net is triggered.

4. CRITERIA FOR EVALUATING THE METHOD OF PAYMENT

Payment of monies committed in the WGTA should achieve a number of objectives identified by the federal government. The most important objectives include compensation for financial losses, economic development of the agricultural industry, and minimal interference with the economic incentives provided through the market. Each of these objectives will be defined and discussed in the context of channelling monies provided by the WGTA.

a. Compensation for Financial Loss

Compensation to individuals for financial losses arising from decisions of government is not founded in the Canadian constitution. According to Challis (1973), "While...under the Common Law there is a presumption against the taking of private property without compensation,...the basic principle of the English Constitution is the supremacy of Parliament. 'The only guide to what Parliament may do is what Parliament has done'. Hence there is no constitutional principle...declaring the inviolability of private property."

Compensation arising from the expropriation of land is founded in the provincial statutes. In the absence of these statutes compensation does not exist even for the direct taking of land. When land is not taken a right to compensation for reduction in land value or actual financial losses incurred by owners of land is also given in some expropriation statutes. Compensation for these financial losses is normally restricted to claims resulting from construction of public works directly affecting land use, rather than damages related to use restrictions. An example would be when a new highway divides a field. Besides the land lost to the road, crop production costs increase because of dividing the field. Since there is no constitutional right to compensation for expropriation in Canada, then it must follow that there is no constitutional right to compensation when the right to use the property is changed or the income arising from a particular use is affected. However, Parliament or a provincial legislature _may_ choose to compensate individuals who are identified to suffer financial losses because of legislation. The _WGTA_ is an example of a legislative change which includes compensation.

The WGTA can be separated into two components. The first part of the Act revised the statutory rates charged for shipping grain by rail, and the second determined the amount of money and the method of distributing the monies to individuals financially harmed by the higher statutory rates. When land is expropriated for public use the provincial statutes define the criteria for establishing suitable compensation. If the landowner disagrees with monies offered, a civil court provides a hearing to decide upon the financial losses. When property is not taken away but an individual is perceived to incur a financial loss because of government legislation, the procedures for redressing the loss are not well established. An objective of the Committee of Inquiry on Crow Benefit Payment is to propose a system by which the financial losses arising from changing the statutory rates for shipping grain are redressed.

The compensation principles which may be followed are:

(1) No one has a priority right to the funds available. All financial losses are ranked equal to each other in terms of eligibility to receive government monies. A dollar lost by farmers producing canola deserves the same priority in receiving compensation as a dollar lost by farmers selling wheat;

(2) In the case in which sufficient funds are not available to compensate all who lose, the monies should be distributed in proportion to the financial losses. If only seventy-five cents of every compensable dollar is available for every dollar lost then each identifiable loss should be paid accordingly; and

(3) The precision with respect to measuring financial losses will vary by economic sector. Probable future financial losses are related to different conditions and the likelihood the conditions will occur. Because the losses are not known with certainty, the estimated losses should be discounted to reflect the number of imponderables. For example, financial losses to cattle finishing in eastern Canada are dependent upon feeder cattle prices increasing in the prairies and the inability to buy comparable cattle in the United States at previous levels. If under these economic conditions the expected annual loss in income to eastern Canadian feeders was a million dollars but the probability of the conditions occurring was determined to be very low, then the financial loss could be discounted to a lower level. Alternately, higher freight rates to ship grain to export markets will lower grain prices on the prairies. If the higher transportation costs are estimated to reduce annual income from crop sales by $750 million and the probability of this happening is very high, then the expected loss may only be discounted modestly to say $630 million/year. Because the future events are uncertain, a priori compensation levels should reflect the likelihood of such events. If the compensatory levels are difficult to estimate, then financial losses should be determined after the events are known.

b. Redistribution of Income

The effects of revising the railway statutory rates on the distribution of income can be analyzed under two scenarios. The first scenario assumes all grain producers and users will behave the same as though no revision had occurred. The behavioristic assumption of no change in decisions is somewhat unrealistic but is a useful starting point by which to identity the redistribution of income. A second scenario attempts to identify the redistribution of income after the grain producers and users adjust to the higher freight rates. Table A5.8 categorizes the redistribution of income.

Under the assumption of no change in the behavior of grain producers or users, the only group losing income is that of prairie farmers selling grains and oilseeds. Since the export market determines the grain and oilseed prices received by sellers, a higher cost to deliver these crops to the market results in lower farm gate prices. As export grain buyers lower the prices offered in the prairies, local buyers will also pay less. The income lost by farmers selling grain will be the price reduction times the amount of grain sold. Since no drop in grain production or sales was assumed, then it is a matter of determining how much grain prices will fall after the change in statutory freight rates. In theory, prior to the revision in statutory freight rates the prairie grain prices would be inflated by the difference between compensatory freight rates and the old Crow Rates. All grain sales would be inflated by the difference in freight rates as users in the prairies have to compete with buyers shipping the grain out of the region. Whenever these conditions existed, domestic feed grain prices offered by livestock feeders and oilseed prices tendered by crushers were comparable to the prices obtained from export buyers. All grain sales would be recorded at higher prices in the prairies than would have occurred had compensatory freight rates been in effect. Under these conditions the direct beneficiaries were all sellers regardless of which market eventually utilized the commodity.

TABLE A5.8

TAXONOMY OF SECTORS FINANCIALLY BENEFITING OR LOSING BECAUSE OF THE REMOVAL OF THE CROWS NEST PASS RATES FOR SHIPPING GRAIN WITH NO OFFSETTING COMPENSATION.

No Change in Decisions by Grain Sellers or Buyers after an Increase in Rates.		Decisions Change by Grain Sellers and Buyers after Increase in Rates	
Income Lost	Income Gained	Income Lost	Income Gained
Sellers of Grains and Oilseeds in Prairies	Transportation (a) Railways (b) Trucking	Sellers of Grain and Oilseeds in Prairies	Transportation (a) Railways (b) Trucking
	Government (a) Federal (b) Provincial	Sellers of Hogs in Canada	Government (a) Federal (b) Provincial
	Buyers of Grain and Oilseeds used in Prairies	Buyers of Feeder Cattle in Prairies	Buyers of Grain and Oilseeds used in Prairies
			Sellers of Feeder Cattle in Prairies

In some years, notably 1977/78, 1978/79 and 1979/80, on-farm stocks of grain accumulated because insufficient grain was moved into the export market. Under these circumstances, prices offered in the domestic feed grain market or by oilseed crushing plants were often below the export market prices. Farmers sold feed grains and canola at prices below the prices offered in the export market because only a portion of the production could be moved into the international market due to an inadequate grain handling and transportation system. Whenever these conditions prevailed, prices in the domestic feed grain market or oilseed market were only partially inflated by the presence of statutory rates. In some cases, the lower prices offered by domestic oilseed crushers in relation to the export market exceeded the differences between statutory and compensatory rates. Under the conditions of restricted deliveries to the export market, the benefit of the differential freight rates was not reflected in the prices offered by users in the prairie provinces. Supplies could be acquired by domestic users without offering comparable prices posted for export sale.

If a farmer chose to sell wheat, oats, and barley to the Canadian Wheat Board (CWB) then his/her income was reduced because interest was paid (not earned) on money borrowed (not loaned) to produce the crop. Only a portion of the crops produced in 1977/78, 1978/79, and 1979/80 was sold. Sales effectively were deferred to 1980/81. Cash advances were provided by government for some of the grain not sold and this helped offset a portion of the added storage and interest costs.

Income lost by grain sellers is redistributed primarily between three sectors, namely: transportation, government, and buyers of grain and oilseeds for use in the prairies. If the same amount of grain is available to haul after the freight rate change, the railways and trucking industry will have higher incomes. Assuming the level of service to grain sellers improves, then the frequency that grain backs up on the prairies should be reduced providing sales could be made. At the previous statutory rates trucking firms could not offer comparable low tariffs and thus hauled minimal amounts of grain to the export markets. The revised rates present an opportunity for trucks to compete with rail.

Government at the federal and provincial level should also gain increased revenues because there should be no need to subsidize branch lines and finance hopper car replacement once railway grain hauling costs are met.

Grain and oilseeds purchased for local use in the prairie provinces will be at lower prices after the increase in freight rates. Lower grain and oilseed prices will reduce the costs for businesses using these inputs. Assuming prairie grain using businesses do not expand production, then their incomes will increase by the amount of the cost reduction. Grain and oilseed stocks accumulated in the prairies from time to time and the prices paid by local buyers were low relative to export prices. Therefore the average income gained by local users will be less than the price reduction times the average amount of grains and oilseeds sold in previous years.

If restructuring freight rates does not influence grain seller or buyer behavior, then it merely redistributes income from grain sellers to the transportation sector, government and prairie grain users. The upshot of this is that the combined income of all sectors will be the same before and after the change. Under the scenario of no change in grain sellers' or buyers' decisions the expanded transportation sector reduces the frequency under which grain is stockpiled in the prairies. However, when this happens local grain users benefited because of the resulting depressed prices. To the extent that the income of local grain buyers did not increase as much as sellers income dropped, then eliminating the surplus situations could result in a modest increase in the combined incomes of all affected parties. Hopefully, their combined incomes would increase sufficiently so that the added revenue remained after grain sellers were compensated.

Once grain sellers and buyers adjust their production and usage of grain and oilseeds, the number of sectors potentially losing income expands. If prairie users of feed grains and oilseeds expand their use because of larger profit margins, the additional hogs and vegetable oils and the reduced number of feeder cattle may impact upon the Canadian and North American markets. Table A5.8 identifies the additional sectors which potentially could lose income. However, the probability that income will be lost because of a revision of statutory freight rates varies. The probability that prairie hog production will increase sufficiently to depress North American pork prices depends upon the incremental magnitude of the growth due to the freight rate increase. The unknown answer involves determining how many hogs would be produced if the freight rates were not revised in comparison with the expected production with a revision. Isolating the probable effect from historical evidence in the context of many other economic, political and technical changes is difficult enough besides attempting to forecast the future economic, political and technical conditions within which the adjustment will occur.

Probable income losses for Canadian hog producers outside the prairies are not only dependent upon prairie hog production but upon the economy into which the pork is sold. The amount of income lost by the sectors not affected directly by higher freight rates will vary annually with the other economic conditions in addition to the prices prairie users pay for grains and oilseeds. Therefore, the list of sectors potentially losing income increases when prairie users adjust to lower grain and oilseed prices. However, the conditions under which their future losses are estimated are uncertain.

Sectors indirectly impacted by a change in statutory freight rates should be recognized but denied an a priori financial commitment. Provisions should be made to pay damages if and when the evidence warrants a hearing.

c. Agricultural Development

In addition to compensating individuals, the monies paid by the federal government should also promote agricultural development in Canada. Agricultural development means more agricultural activity including, for example, an increase in both the current income received by all Canadian farmers and growth in the future income levels. Including the income of all Canadian farmers means that increasing the income of grain farmers at the expense of livestock producers may not be a net increase to all farmers. Similarly if the income of prairie livestock producers increases while other Canadian producers incur a loss, their combined incomes may not necessarily have increased.

Table A5.8 shows agriculture would most likely lose income with a revision in statutory freight rates on export grain while the rest of the economy would have higher income levels. To maintain the expected income gained by transportation, government and users of grain and oilseeds in the prairies, the method of payment should not diminish these development opportunities. The economic development potential created by revising the freight rates occurs because of the investment levels in transportation and the lower cost structure of prairie businesses using grains and oilseeds. Therefore compensation does not have to create agricultural development but it should not diminish or dissipate any potentials created by revising the statutory rates.

d. Neutrality

Neutrality means that farmers and the agribusiness community would make the same decisions with or without compensation. In other words, the railways are indifferent with respect to who shares the cost of grain shipments as long as they receive the same revenue. Similarly, grain dealers, processors and local users would make the same decisions with and without the transfer payment. Lastly, grain farmers would also be unaffected by the payment in terms of how grain was produced, which crops were grown and the level of crop production. Clearly, neutrality is a theoretical norm that cannot be achieved in reality. Even if farmers received annual cheques defined to equal the total losses incurred because the freight rates were changed, the money would be spent on relatively different items than if no money was paid. Therefore, the goal of neutrality should be to identify the method of payment which would maintain the same relative purchases of inputs and sales of products as if no payment took place.

5. EFFECTIVENESS OF THE NET SALES CREDIT AS A METHOD OF PAYMENT

The monies disbursed through the WGTA should compensate individuals and business financially harmed by higher statutory freight rates, promote faster agricultural development and maintain the economic incentives provided by the market.

a. Compensation

Prairie grain sellers were identified to lose financially because freight rates increased for grain shipped out of the prairies. The net sales credit attempts to redress the income lost. To the extent that all grain and oilseed prices would drop by the additional transportation costs, then the total funds required to restore the previous income would equal the average yearly sales times the price decrease. In 1981/82 the grain price decrease would have averaged $20.90/tonne if freight rates reflected the total cost of transportation. Furthermore, in 1981/82 31.5 million tonnes of grain were shipped out of the prairies and between 3.5 and 5.5 million tonnes were sold between farms, to feed mills and the food industry. Choosing 1981/82 as a base year suggests that between 35 million and 37 million tonnes of grain were sold in the prairies and would require compensation equalling $731 million to $773 million to offset the income lost because of higher freight rates. The firm funds available in the WGTA are $658.6 million. This represents a shortfall of between 10 percent ($72 million) and 17 percent ($114 million). The shortage of compensation funding assumes a base of 31.5 million tonnes, representing normal sustained marketings outside the prairie region.

In 1981/82 the level of marketings was partly due to a carry-over above the minimal level of grain stocks on July 31, 1981 and an above average crop. The 1981 crop set a record production level of 42.5 million tonnes and has only been exceeded once since then. Given long-term weather conditions, the area seeded in 1981, and conventional technology, the estimated average level of production in 1981 would have been between 36 and 37 million tonnes (Kraft, 1980). Therefore, if 1981 had been an average year, total marketings from the prairies would have been between 26 and 27 million tonnes, not 31.5 million tonnes. A shortage in compensating fundings is only a meaningful argument if 31.5 million tonnes was an expected normal level of grain shipment in 1981/82. In fact, at that time the shipments set a historical high. In 1981/82, approximately 10 million tonnes of grain were utilized within the prairies as feed, seed or processed by the food industry. A normal level of shipment would have been 26 million to 27 million tonnes.

Expanding the qualifying volume to include grain sales within the prairie region effectively adds between 3.5 million and 5.5 million tonnes to the historical normal shipment base of 26 million tonnes to 27 million tonnes. The volume of 31.5 million tonnes more accurately reflects average grain sales from and within the prairies than it does average shipments from the prairies. The Crow Benefit as calculated was unique to 1981/82. It over estimated the benefit if longer term estimates of probable shipments had been used.

A price reduction equal to the higher freight rates presumes the grain and oilseed prices prior to the rate increase always reflected the Crow Rates. This was not the case during the years when stocks of grain accumulated. Carter, et al (1984), show the average open market prices of feed grains fell below export prices in 1977/78, 1978/79 and 1979/80.

A study by Mooney on rapeseed pricing also indicated that street prices were depressed relative to prices in export position whenever farm stocks of rapeseed accumulated because of inadequate delivery quotas (Mooney, 1985). In addition, higher storage costs were incurred by farmers deferring sales when the transportation system could not move the available supply. Assuming the excess supplies would occur one year in every three under the previous method of funding grain shipments, then the combined income lost to sellers is estimated to be between \$30 million and \$40 million a year.

The average total income lost by grain sellers is less than \$731 million to \$773 million if freight rates increased to \$20.90/tonne. If the 1981/82 expected sales volume rather than the actual volume was the basis for determining the income lost, the compensation would drop to between \$637 million and \$678 million a year. In addition, by accounting for the income lost to sellers through added storage and depressed prices for local sales, the compensation necessary would drop to between \$607 million and \$648 million annually. Therefore, given an historical basis for determining the potential income lost by grain sellers, the monies already provided in the WGTA should adequately redress the average annual loss. The WGTA does not provide compensation funds for grain sales levels above the historical levels. However, without providing the financial incentives to expand the grain handling system it is doubtful that average grain sales would exceed the historical basis.

The net sales credit approach does not provide a mechanism to compensate livestock producers. The probability that higher prairie feeder cattle prices will occur and subsequently cause the incomes of eastern Canadian feedlot operators to fall is subject to many future events as well as freight rates. Similarly, the price depressing effect of the unknown growth of the prairie hog industry cannot be determined with sufficient precision to establish compensation levels. Therefore, compensation to the livestock sector should be reviewed in the future to determine the effect of a change in statutory freight rates on the incomes of Canadian livestock producers.

b. Neutrality

i) Grain and Oilseed Sellers

A sales credit linked to transactions of grains and oilseeds is neutral with respect to all qualifying market transactions. The seller is indifferent with respect to which buyer purchases the grain because the net sales credit is identical. The decision to sell to a grain dealer purchasing feed grain for resale in other regions in Canada or to a farmer buying feed grain in the prairies is based upon the conditions of sale which are independent of net sales credit. In most circumstances the feed grain buyers would have to offer comparable prices. If compensation is linked to a sale rather than the mode of transportation, the feed grain user, seed grain buyer or grain processor in the prairies competes on an equal basis with companies buying grain and moving it out of the region at a reduced transportation tariff.

Farmers selling grain directly to the United States as seed grain or oilseeds to processors should also qualify for the net grain sales credit. This could be accomplished at the border crossing where the Canadian customs agent could process the credit card. In most cases, however, Canadian grain dealers will be exporting products to the United States, but farmers should not be penalized for merchandizing their grains to export markets.

Net grain sales credit for qualifying grains and oilseeds discriminate against the crops not eligible for the payment. Forages are excluded. Because the eligible crops are entitled to a net grain sales credit and forages are not, there is an explicit incentive to produce the qualifying crops. Forages are used primarly on-farm and only a portion would qualify for a credit anyway. However, this is no change from the situation under the existing method of payment in the WGTA.

Besides the incentive to sell grains, oilseeds or pulse crops, there is an indirect penalty to feed one's own grain to livestock. A credit is not obtained unless a transaction of grain or oilseeds takes place. Farmers will also not be compensated if the purchases of grains and oilseeds exceed sales. This system of compensation will encourage greater on-farm specialization of crop and livestock production in the prairies. Farms specializing in dairy, hogs, poultry or beef production will only produce their feed grain requirements if the production costs are below the acquisition costs. To the extent that the net sales credits lower the aquisition costs, livestock farms will tend to buy more feed grains than produce them. In addition, if the livestock farms previously produced food grains and bought feed grains, the net sales credit should not discourage this practice.

One possible outcome could be the business reorganization of the farm. In this case the livestock enterprise would be incorporated as a separate entity and would qualify as a legitimate agent to purchase feed grain. Grain sold to the livestock company would qualify for net grain sales credit. While reorganization may be the best alternative for some farms, the net grain sales credit would by itself not be sufficient reason to incorporate for many farms.

ii) Grain and Oilseed Buyers

Farmers with qualifying grain sales will have credits offset by grain purchases. The cost of grain to a farmer will equal the purchase price plus the loss of the net sales credit. The added cost may discourage the acquisition of certified or registered seed grain but if these products are to qualify for a credit, there should be a corresponding debit.

Farmers may attempt to import qualifying grains directly from the United States and merchandize them as their own production. To the extent that the net sales credit exceeds the transportation and handling cost, such activities would be profitable. To guard against this possibility, Canadian customs agents should require all grain importers to identify whether they are a farmer or grain dealer. All farmer imports should be processed at the border with the farmer's identifying credit card number. Existing controls at the international points of entry should limit most of these problems.

Under a system wherein the payment of funds established under the WGTA is based upon sales, no final use of grain is given preferential treatment. In the current situation in which the transportation tariffs are lowered for grain shipped from the region, buyers intending to use the grain within the prairie region must match the price offered by agents intending to ship grain at the reduced tariff.

The WGTA recognized the disadvantaged position of the vegetable oil crushing industry and added the processed products of this sector to the list of commodities eligible to receive the funds. If payment is based upon grain sales by farmers there is no need to include any processed products in the qualifying commodities. A canola processor should be indifferent between the current system and the proposed system. Under the net sales credit the higher freight rates on oil and meal would be offset by lower seed input costs as farmers are paid less. If processed products are removed from the list of qualifying commodities, the argument that Canada is directly subsidizing the export of these products no longer holds. Under GATT rules, export subsidies on products other than primary products are prohibited. Primary products are defined by GATT to be "any product of farm, forest or fishery, in its natural form or which has undergone such processing as is customarily required to prepare it for marketing in substantial volume in international trade". According to this definition canola oil, meal or millfeeds are not primary products. A net sales credit approach therefore impacts on a primary product but not a processed product.

When subsidies on primary products appear to assist an exporting country, the GATT disciplines are less stringent. Article 10 of the GATT code says "the signatories agree not to grant directly or indirectly any subsidy in a manner which results in the signatory granting such subsidy having more than an equitable share of the world trade in such product." Article 10 obliges the signatories not to subsidize primary products in a manner which materially lowers the price below that of other suppliers in the same market. A railway payment to lower freight rates on grain exported from the prairies would likely be viewed as a direct subsidy on a primary product while a net sales credit would be an indirect subsidy. In either case the Canadian position would be that the payment does not lower world prices of qualifying primary products and does not result in a larger Canadian share of the world grain trade.

When viewed by Canada's trade partners a net sales credit is a more neutral means of compensating farmers than lowering freight rates for export grains and related products.

With the current method of payment in the WGTA, the livestock industry in the prairie region must meet the prices offered by feed grain buyers shipping the product out of the area. Only in circumstances in which current deliveries are restricted out of the area and grain owners are not willing to store their grain until the system becomes less congested will the price accepted by farmers for sale to the local livestock industry fall below the price offered by exporters. With increased transportation capacity these events should be less frequent in the future than the past. Similarly, a payment based upon sales would not provide preferred treatment to any buyer because the livestock industry in the prairie region would continue to compete with the export buyers. The competition, however, gives neither party an advantage because of a government payment. Feed grain buyers for eastern Canada must offer comparable prices to the feed grain buyers for western Canada. Neither party has an advantage because a government payment offsets some of their aquisition costs. Both domestic buyers must of course compete directly with prices offered by importers through the Canadian Wheat Board.

c. Agricultural Economic Development

Agricultural economic development will occur through the prairie grains and livestock sectors. An expanded transportation system will allow prairie farmers to ship more grain to export buyers if higher crop production is in their economic interest. A net sales credit provides an additional economic incentive to produce grains and oilseeds. If no compensation were present, the lowered grains and oilseed prices could result in less production and economic activity. A net sales credit supplements the market prices of grains and oilseeds. The combined grain price will be lower than if all the government monies reduced freight rates on the grain exported.

The grain price differential between a net sales credit and freight rate reduction varies by the amount of grain exported. Under a net sales credit when export levels equal or exceed 31.5 million tonnes the average combined price of grain will be between $2/tonne and $3.50/tonne less than when payments are made to the railways. During years when shipments fall below 26 million tonnes there will be no difference in income between a method of payment which distributes monies to the railways or a net sales credit to sellers. For shipments between 26 million tonnes and 31.5 million tonnes the grain price differential between the net sales credit method or direct payments to the railways exceeds zero but will be less than $2.00/tonne.

The long-run differential growth of prairie grain and oilseeds production will not be influenced by the difference in grain prices between net sales credit and payments to the railways. The future value of the Canadian dollar, international trade policies, domestic inflation rates, interest rates, and crop yields will have more influence on crop production than a difference in crop prices of between $2.00/tonne and $3.50/tonne.

Whereas the prairie grain economy is unlikely to grow any faster or slower because of the differential incentives between a net sales credit and payments to the railways, the same is not true for the livestock industry. The prairiewide average cost of feed grain is $20/tonne to $21/tonne higher under the payment to the railways, when compared to the net sales credit. The cost of producing hogs, poultry, milk and beef will all drop in proportion to the feed grain required. The economic growth potential depends upon the market arrangements for selling the product, profitability and the inclination of prairie farmers to invest in the livestock industry. The potential economic development of the prairie livestock industry is much greater under net sales credit than payment to the railways.

Increasing the transportation costs to grain and oilseed buyers may, on some occasions, result in the buyer's hiring trucks to move grain. To the extent that shippers can compare both modes of transport in terms of tariffs that more accurately reflect their cost structure, real cost savings are possible if trucking is competitive in some situations. Therefore, a net grain sales credit approach may result in a less costly system of handling grain because it does not indirectly discriminate against the trucking industry.

6. SUMMARY AND CONCLUSIONS

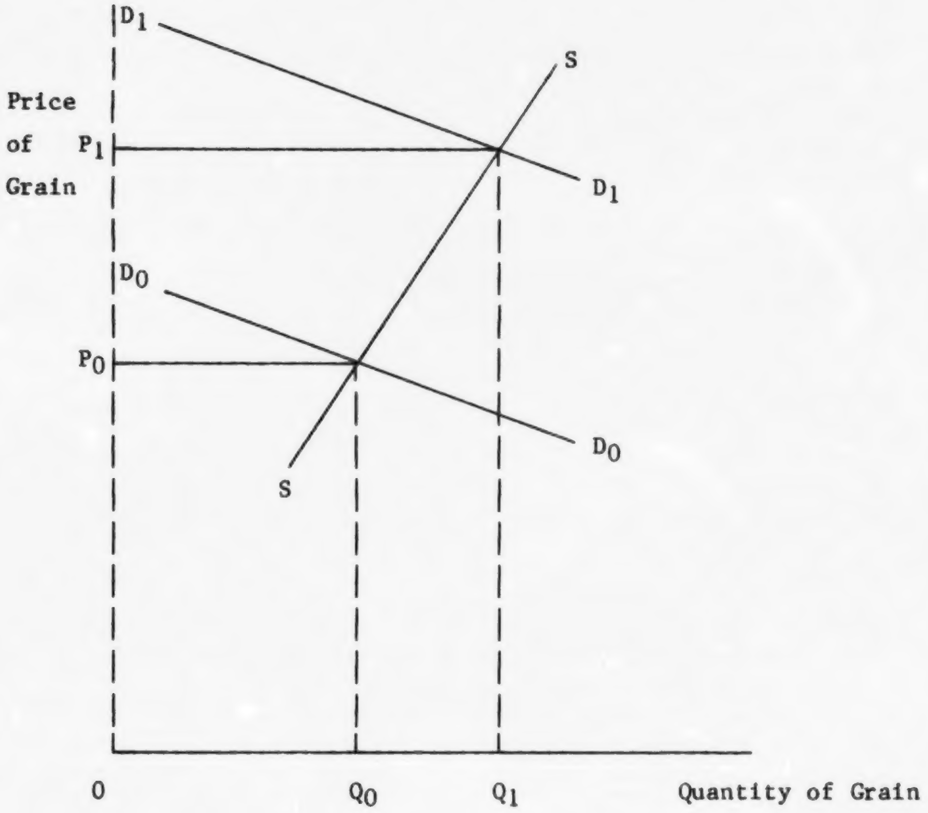
Paying the monies committed by the WGTA to farmers on the basis of each farmer's share of net sales can be accomplished by recording all grain and oilseed transactions. This information is currently being recorded for income tax purposes and does not require producing any new information. All buyers would be required to file records showing grain and oilseed purchases from farmers. At the end of each crop year, a central agency would be responsible for tabulating all transactions, mailing summary statments to all participants to verify their sales and receipts, and auditing any returns which appear to be suspicious.

A system whereby the seller is independently compensated regardless of what the buyer does with the crop is neutral with respect to all market transactions. Currently, only the grain or grain product shipped from the prairies qualifies for compensation. Under the proposed method of payment, grain and oilseed prices within the prairies would reflect full transportation costs of moving the commodities to export positions.

Currently, whenever transportation services are adequate to move all the crops that farmers wish to deliver, the prices within the prairies are artifically inflated by the payment of government monies to the railways. The artifically high feed grain and oilseed prices raise the cost to users within the prairie provinces. Paying the sellers directly would deflate the government influenced commodity prices. The net grain sales credit would offset between 83 percent and 90 percent of the decline in grain and oilseed prices. The average difference in crop prices received by farmers between the payment to the railways and net sales credit options should not exceed between $2.00/tonne and $3.50/tonne.

A method of payment which distributes monies on the basis of net sales identifies the losers under a transportation system which charges full cost of service to be all farmers selling grain and oilseeds. If statutory rates were in effect and no grain surpluses accumulated, then all sales will reflect the lower transportation charges, and commodity prices in the prairies would be higher. Raising the transportation rates to reflect the cost effectively lowers commodity prices in the prairies because the farm gate prices are determined predominately by sales to markets outside the prairies less the costs incurred to reach these markets. A method of payment which offsets the reduction in farm gate commodity prices by a net grain sales credit on all sales compensates losers with minimal distortions between commodity prices.

FIGURE A5.1: PAYMENTS TO BUYERS OR SELLERS OF GRAIN



Given no payments are made to buyers or sellers the market clearing price is OP_0 and OQ_0 is grain sold. A payment for every tonne of grain purchased by a buyer would shift the demand curve from D_0D_0 to D_1D_1. The unit subsidy equals $OP_1 - OP_0$. Given a competitive market the buyers would bid the price to OP_1 with the subsidy. Market prices would increase by the subsidy. Total sales would increase from OQ_0 to OQ_1. Alternately, if the government transferred payment per unit of $OP_1 - OP_0$ to farmers, in addition to the market price of OP_0 the combined price to sellers would be $OP_0 + P_0P_1$(payment) = OP_1

REFERENCES

Challis, David, (1973), The Law of Expropriation, 2nd Edition, MacMillin Co., Toronto.

Carter, C. A., Hickson A., Kraft, D. F., The Welfare Effects of Export Constraints in the Canadian Feed Grains Market, Canadian Journal of Agricultural Economics, 32, (March 1984).

Kraft, D.F., (1980), The Crop Production Potential in the Prairie Provinces, Department of Agricultural Economics and Farm Management, University of Manitoba.

Mooney, W. D., (1985), An Econometric Analysis of Rapeseed Basis Behaviour, Unpublished M. Sc. Thesis, University of Manitoba.

APPENDIX 6

SUMMARY OF THE ANALYSIS OF THE TECHNICAL/ADMINISTRATIVE FEASIBILITY OF LAND-BASED PRODUCER PAYMENT OPTIONS

Prepared by Agriculture Canada; March, 1985.

1. Amongst other criticisms that have been levelled at historically-based producer payment options, the complexity involved in estimating and distributing payments in this manner has caused concern as to whether such options would be viable on technical grounds and/or whether they would impose undue administrative costs. This paper summarizes the results of a recent Agriculture Canada analysis of the technical/administrative feasibility of historically-based producer payment options. This work was undertaken for the Committee of Inquiry on Crow Benefit Payment. The full results will be forthcoming in the near future in a separate departmental working paper.

2. There are four main types of historical land-based payment options, including:

   a) Payments made on the basis of acreage such as the Gilson productivity-adjusted acreage, or potential production, proposal;

   b) payments distributed on the basis of historical rail shipments of statutory grain;

   c) payments distributed on the basis of recorded historical marketings of statutory grain; and

d) combinations of the above such as the Freight Entitlement proposal which combines historical marketings with the Gilson approach.

3. Historically-based payment options would differ from other approaches to distributing producer payments such as current or moving average marketings or shipments in that they would, for the most part, fix the distribution of the future payments according to a base year or base period. Historically-based payment options would have to be tied to the agricultural land base in order to ensure that payments could be made in perpetuity. Hence, the Gilson approach forms the core of other historically-based producer payment options. The study concentrated on the Gilson approach on the grounds that if this option proved infeasible, then so would the others.

4. The Gilson approach proposed that individual payments in the future would be determined by the distribution of payments on all cultivated acres in a base year with payments being made to land operators. Moreover, new acres would not be eligible for compensation as would land that might subsequently be taken out of agricultural production in the future. The eligible historical land base would exclude land that was not included on Canadian Wheat Board (CWB) permit books, land that was not rated by provincial Crop Insurance Boards and land that had no cultivated acreage in the base year. The estimated potential production and payments per quarter section in the base year would reflect:

   a) Crop Insurance risk zone average yields by soil type;

   b) risk zone crop rotation on historical crop mix;

c) the number of cultivated acres per quarter section from municipal tax assessment files; and

d) risk zone average freight rates.

Payments per farm would equal the sum of the payments per quarter section listed in each land operator's CWB permit book.

5. The study concentrated on Saskatchewan because the cultivated acreage data from minicipal tax assessment files was, unlike Alberta, Manitoba and B.C., already contained on the Saskatchewan Crop Insurance Board's (SCIB) computer file. Crop year 1981-82 was chosen as the base year, primarily because that was the year recommended by Gilson.

6. Two main data bases were used in assessing the feasibility of the Gilson approach. The SCIB computer file lists all quarter sections of agricultural land that had one or more cultivated acres in the base year. The CWB computer files contain the permit numbers of all producers registered with the CWB plus the land listed in each producer's permit book.

7. The estimates of potential production and payments per quarter section were calculated as described in Appendix II of the Report of the Working Group on Producer Payments published by Agriculture Canada in May 1983. As expected, the SCIB computer file contained few problems. It contained data on 371,613 quarter sections of which some 1,215 records were deleted from the file on the following grounds:

   - 300 records identified as in Alberta;
   - 49 records with zero cultivated acres;
   - 257 records that were duplicated;
   - 609 records with the quarter section code greater than 4;

In addition, 5,429 records had a special code in place of the number of cultivated acres. These were assigned 25 acres each on the advice of SCIB staff and were retained on the file. Thus, the eligible Saskatchewan land base from crop insurance amounted to 370,398 quarter sections.

8. The following table gives some of the estimated 1984-85 payments per acre, assuming 80 percent of compensation being paid to producers, by soil type and risk area. The Saskatchewan share of compensation under the 80:20 option in 1984-85 was estimated at 0.8 X $356 million = $285 million and was based on Saskatchewan's five year average share of rail shipments up to 1981-82.

1984-85 Estimated Compensation Per
Acre Under the 80:20 Option
- $Per Acre -

SOIL	RISK AREA				
TYPE	6	9	16	17	21
1	-	-	7.67	10.17	10.56
2	6.50	6.55	7.54	9.95	10.45
.					
.					
.					
7	5.70	5.81	6.95	8.68	9.36
8	5.46	5.59	6.51	8.34	9.01
.					
.					
.					
13	3.60	3.66	3.95	5.62	5.91
14	3.07	3.15	3.31	4.71	4.96

The results confirm that productivity-adjusted acreage payments would fall as soil quality lessens and would increase with distance from the nearest port. The smallest payment per acre would be $3.07 on soil type 14 in risk area 6 while the largest payment per acre would be $10.56 on soil type 1 in risk area 21. It is worth noting that payments per quarter section would be equal to the relevant payment per acre multiplied by the number of cultivated acres per quarter section.

9. Because of time constraints, it was not possible to estimate the distribution of payments per farm. It was possible to test the technical feasibility of the steps that would be involved in this process, however. The first step in calculating payments per farm would determine the CWB land base as listed on permit books. This would involve linking the CWB Land History file, which contains the legal land description and producer's identification for each land unit, with the CWB Permit Number, Name and Address file. This link would identify eligible producers and cases where land is held under more than one permit book. This link was successfully tested on a subset of CWB records; furthermore, the Board does this link every year in determining final payments. Hence, this step was by-passed in order to test a more critical step in the process.

10. By far, the most complex part of the estimation of payments per farm would involve linking the SCIB file with the CWB data on the basis of each quarter section's legal land identification. The purpose of this link would be to identify who would receive compensation and to sum the payments per quarter operated by each producer. Because the previous step was by-passed, this link was tested using the SCIB file and a subset of the CWB Land History file.

The subset of the Land History file was arrived at by setting aside problem cases that did not involve a test of the link on legal land identification only. The 1981-82 Land History file contains 398,777 land units. Some land units were found to be multiple-listed on the file due to such factors as special and joint permits and shared land operated by more than one producer. A total of 192,947 records were deleted from this file with nearly one third being duplicate records. The other two-thirds comprised shared land and half and whole section records. The duplicates would have been identified and handled if the Land History and Name and Address files had first been linked. The shared land problem would only involve pro-rating the compensation per land unit according to each operator's share of it. The splitting of half and whole sections into quarter section records would only be a problem for odd sized units and then only if there was a change in tenure. This could easily be handled in the processing of each year's payout should a land-based option ever be implemented.

Overall, then, the analysis found that the records that were deleted would not pose insurmountable technical problems. Thus, the total number of CWB records used to test the link on legal land identification was 205,860.

11. Legal land descriptions at the quarter section level include eight separate codes from the meridian code down to the quarter section identifier. The maximum number of records that could have been linked from the SCIB and the subset of the CWB files amounted to 205,860 records. The actual number of records that linked equalled 200,155 with 5,818 CWB records unmatched. Thus, the error rate of unmatched records was 2.8 percent.

Hence, the basic conclusion is that the Gilson proposal is technically feasible, at least insofar as Saskatchewan is concerned. The CWB files encompass the entire designated region and it is unlikely that its data for the rest of this area would be in different shape than what was found for Saskatchewan. The Alberta and Manitoba Crop Insurance files would likely be in the same shape as the SCIB file because these bodies also are faced with making payments each year.

Other options, such as Freight Entitlement, which involve tying five year average marketings/shipments to the eligible land base, would pose additional problems which have not been tested. Hence, while one of the major unknowns has been answered with respect to Freight Entitlement, the feasibility of this option has not yet been fully established.

12. In the spring of 1983, Agriculture Canada prepared a submission to Treasury Board in anticipation of the implementation of the Gilson Approach to producer payments. This report was used as a basis for estimating the start-up and annual operating costs of both the Gilson approach and the Freight Entitlement option, assuming the latter is not technically infeasible. The start-up costs assume the same implementation time of 6-8 months underlying the 1983 cost study. The revised estimates from the previous report take into account inflation in the interim and further experience with the type of computer equipment that would likely be required to implement each option.

	Start-up Costs	Annual Operating Costs
	- $ million 1985 -	
Gilson	2.5 - 3.5	1.25
Freight Entitlement	3.0 - 4.0	1.25

The start-up costs to implement the Gilson option could range from $2.5 to $3.5 million depending on whether the Western Grain Stabilization Administration's current computer system would only have to be upgraded or whether the implementation of this option would require a mainframe computer. The Freight Entitlement would likely be in the range of $3-4 million with the additional $0.5 million going towards systems development and software in order to estimate each quarter section's share of five year average marketings. Because both options are historically-based, the annual operating costs would be equal in the neighbourhood of $1.25 million per year measured in constant dollars.

APPENDIX 7

COMPARISON OF ADMINISTRATIVE COSTS

The costs of administering a payments system were often cited as either an advantage or a disadvantage by the proponents of various schemes. The Committee decided that, to be acceptable, a recommended method of payment should not impose an excessive burden on the public treasury.

The following table compares the estimated costs to the government of administering the current payments to railways, the proposed marketings based payments (GTR), and acreage-based payments.

The Committee obtained cost estimates for both the GTR and the acreage-based system. The administrative cost estimates for the GTR assume that it would be administered by the WGSA on behalf of the Department of Transport under whose name the Crow Benefit funds are voted by Parliament. Significant cost savings are achieved by incorporating GTR administration into WGSA operations. The annual operating cost estimate of $1.0 million for the GTR includes staff costs, operating costs including mailing and office expenses, and data collection plus verification costs. Some minimal, start-up costs would be associated with registering sellers and issuing identification cards. These are not expected to be excessive.

Acreage payments administration costs are estimated to be $1.25 million per year with start-up costs ranging from approximately $2.5 to $3.5 million. Start-up costs derive from data base creation and computer purchases.

The costs of administering the current payments to railways are based on actual expenditures incurred by the Government of Canada. The estimate of $400,000 includes staff costs, and non-salary operating costs. Not included are any other overhead costs, e.g. office, furniture, etc.

ESTIMATED START-UP AND OPERATING COSTS
OF PAYMENTS SYSTEMS
($ million)

	Start-up Costs	Annual Operating Costs
Payments to Railways	*	.40
Grain Transportation Refund	**	1.00
Acreage Payments	2.5 - 3.5	1.25

* Not available
** Minimal

Source: Agriculture Canada
Canadian Transport Commission
Western Grain Stabilization Administration